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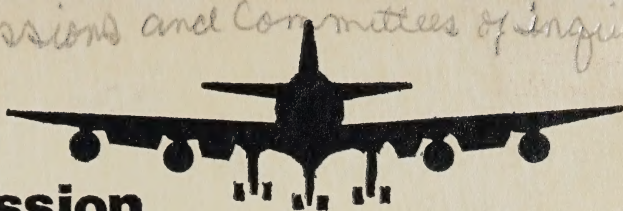




Canada. [Commissions and Committees of Inquiry]



# Airport Inquiry Commission



(5)

report

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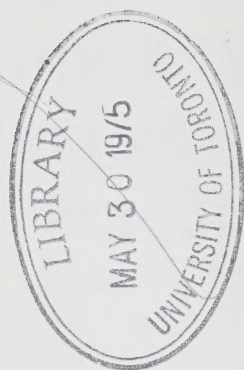
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# REPORT OF THE AIRPORT INQUIRY COMMISSION







**AIRPORT INQUIRY COMMISSION**  
**COMMISSION D'ENQUÊTE SUR L'AÉROPORT**

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*Murray V. Jones, Esq.*

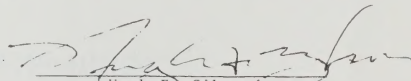
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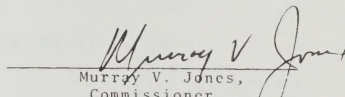
TO HIS EXCELLENCY

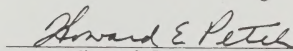
THE GOVERNOR GENERAL IN COUNCIL,

May it Please Your Excellency,

We, the Commissioners appointed by Order in Council P.C. 1973-3026 dated October 5, 1973, to inquire into and report upon certain matters in relation to the air transportation needs of the central Ontario market have completed the duties prescribed in the said Order in Council and now submit our Report.

  
\_\_\_\_\_  
Hugh F. Gibson,  
Chairman.

  
\_\_\_\_\_  
Murray V. Jones,  
Commissioner.

  
\_\_\_\_\_  
Howard E. Petch,  
Commissioner.





**AIRPORT INQUIRY COMMISSION  
COMMISSION D'ENQUÊTE SUR L'AÉROPORT**

**COMMISSIONERS**

**CHAIRMAN**

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## CHAPTER I

### Constitution and Organization of Airport Inquiry Commission

The Airport Inquiry Commission was constituted by and derived its powers from *Order in Council* P.C. 1973-3026. (See Appendix 1 to this Report)

The *Order in Council* recited certain decisions that had been made by the Government of Canada. The existing Toronto International Airport, hereinafter called Malton Airport, should not be expanded beyond its present boundaries in order not to increase the degree of disturbance from flight operations to the people residing in the communities around Malton; the needs of the central Ontario market required that another international airport be established in addition to Malton; and a site near Pickering, Ontario, had been chosen for the location of a new International Airport, hereinafter called Pickering Airport.

Simply stated, the *Order in Council* imposed two basic duties upon the Commissioners. Firstly, to inquire into and report upon whether there was any new evidence affecting the said decisions of the Government of Canada, and whether there was any new evidence of any relevant factor not previously considered by the Government of Canada in arriving at the said decisions. Secondly, to inquire into and to report on the role which the new International Airport should serve, the date such should be opened, the nature of ground access to the new International Airport and between the new International Airport and the Malton Airport and

whether downtown terminals should be established for passenger convenience.

The Commission held Organizational Hearings prior to each Public Hearing. At the initial Organizational Hearings held in the vicinities of the Malton Airport, the site near Pickering and in the City of Toronto, the Commission described in a general way, to those in attendance, its understanding of the *Order in Council*.

The Commission took the position at all times, and it reiterates at this time, that the *Order in Council* to it was perfectly clear, namely, to January 30, 1973, the Government had made the said decisions recited in the *Order in Council*, and it was looking for evidence, if any existed, which had arisen since that time, which could be classified as New evidence in respect to paragraph 1 and any evidence in respect to paragraph 2 of the *Order in Council*, which might have a bearing on Government decisions to date.

The fundamental questions which the Commission was to consider under Paragraph 1 of the *Order in Council* were the questions of need and location. In considering these questions, the Commission was not directed to conduct a new study of these matters parallel to studies already conducted by the Government of Canada, prior to 30 January, 1973. Instead, the Commission was directed to conduct an entirely different inquiry in respect to need and location, which the Commission did in depth. The Government of Canada had decided, as result of forecasts of growth in air passengers, air cargo and aircraft movements made prior to 30 January, 1973, that the air transportation needs of the central Ontario market required that there be a new international airport to serve the central Ontario market. The Commission was asked by the *Order in Council* to determine whether there was any new evidence that had arisen since 30 January, 1973, which would affect the decision of the Government of Canada as to the need for a new international airport. The Government of Canada had decided, as result of studies conducted for the location of a suitable site for a new international airport prior to 30 January, 1973, that a site near Pickering, Ontario, was the appropriate location for such a new international airport. By the *Order in Council*, the Commission was asked to determine whether there was any new evidence that had arisen subsequent to 30 January, 1973, which would prove that the site near Pickering, Ontario, was not a suitable location for a

new international airport to serve the central Ontario market. In considering both the questions of need and location, the Commission was also directed to consider whether there was any new evidence of any relevant factor that had not been previously considered by the Government of Canada when it made its decisions as to the need for and location of a new international airport.

The Commission also took the position that it was not authorized by the *Order in Council* to make funds available to various groups to assist them in research, the collection of evidence, and the presentation of that evidence before the Commission.

In organizing for its Hearings, the Commissioners promulgated a Practice and Procedure in December, 1973, which set out the manner in which the Organizational and Public Hearings would be conducted and the manner in which evidence would be received. A copy of this Practice and Procedure is Appendix 2 to this Report.

The Public was invited to participate in the Inquiry. To this end, the public was notified of the Terms of Reference of the Commission, that the Commission had established a Practice and Procedure, and the manner in which evidence could be presented before the Commission. In addition, notice was given well in advance of each Organizational Hearing and Public Hearing. This was done in many ways as set out in the Affidavit of the Registrar-Administrator which is Appendix 3 to this Report. In brief, advertisements were placed in the Toronto newspapers, in daily and weekly newspapers published in the central Ontario market, and beyond. A copy of the *Order in Council* and Practice and Procedure was mailed to television and radio stations serving the central Ontario market. A copy of the *Order in Council*, and Practice and Procedure was forwarded to all Members of the Federal Parliament from the Province of Ontario, the Executive Council of the Province of Ontario, and all Members of the Legislative Assembly of the Province of Ontario, the Mayors, Reeves and Chairmen, as the case may be, and Clerks of each Municipal and Regional Government in the Toronto Metroplex (Metropolitan Toronto and surrounding areas), and in the area comprising the central Ontario market, and beyond.

The Practice and Procedure adopted by the Commission was designed to facilitate the adducing of evidence before the Commission and to permit everyone to have knowledge, well in advance, of the evidence which would be adduced before the Commission at a particular Hearing. As a result, the Ministry of Transport, Canada, had to file, in advance, all the evidence that it intended to introduce, as did every other witness. Thereby, every member of the public, long in advance of any Public Hearing, had an opportunity to read such evidence and consider it. This assured that there would not be an Inquiry by “ambush”.

Offices were opened in downtown City of Toronto, near Malton Airport and near the site of the Pickering Airport for the convenience of the public. Every Government document that was to be introduced into evidence, every evidence statement that was to be introduced into evidence by any member of the public, group, agency, corporation and municipal government was made available for public inspection. During the course of the Hearings, every interested person was afforded an opportunity to review the exhibits which had been filed into evidence and to review the daily transcript of the evidence. In effect, there was an opportunity given to all interested persons to examine in detail all evidence that was to be put before the Commission, all evidence that was in fact put before the Commission, and to have copies of documents made and to take the same away.

Commission Counsel spent many hours assisting prospective witnesses who wished assistance in adducing their evidence before the Commission.

The effectiveness of the Commission adopting this procedure may be assessed from the fact that over the entire course of the Hearings, which extended from March to August and covers some 6,000 pages of transcript of evidence and 600 exhibits, the evidence of 200 witnesses was received. In addition, there were about 250 additional persons who submitted evidence statements and had the opportunity to give oral evidence in support, but for reasons of their own they did not.

Both before and during the course of the Hearings, at the early stages at least, there was certain criticism that the Hearings were not conveniently held in terms of public participation. The Commission believes that it should be noted that it sat regularly during



the evenings for many hours and in different places, so that not only could the public participate after working hours, but also, so that persons interested in attending or wishing to give evidence would not in fact have to travel great distances. To this end, the Commission sat near Malton Airport for some weeks, both during the day and evening. Similarly, the Commission sat two weeks, both during the day and evening, in the Towns of Pickering and Brougham, in the vicinity of the site near Pickering. In addition, the Commission sat in the day and evening in the City of Toronto. Any witness, both professional or lay, who wished to give evidence but could not attend during the daytime was scheduled to testify before the Commission in the evening wherever possible.

To assist the public to cope with the magnitude of the questions raised in the *Order in Council*, and to be considered by the Commission, the *Order in Council* was divided into two parts called by the Commission, Phase I and Phase II. The questions raised by the *Order in Council* in respect to each Phase were subdivided into a class of common subjects. Public Hearings were then held in respect to each subject class. This was set out in the Schedule of Hearings prepared by the Commission. A copy of the Schedule of Hearings is Appendix 4 to this Report.

As previously mentioned, many private members of the public, interested agencies and groups, corporations, regional and municipal governments filed evidence statements and gave oral evidence in support of the same. Lists of those who submitted evidence statements only, and those who in addition actually testified before the Commission, are as set out in Appendix 5 of this Report.

The Commission wishes to express its indebtedness to both an enlightened, intelligent and active interest of the public, as was evidenced by the number of the written evidence statements, as well as by the obvious devotion and interest given to the Commission's work by those who attended to give evidence. It would be, in our opinion, inappropriate to single out any particular group or any particular individual, but at the same time, it would be equally unjust not to make some specific reference to the length of time and care in preparation which had been taken by many, some of whom submitted only written evidence and others who gave evidence orally.

A great deal of the evidence had been carefully thought out and was directed to the Commission in such a way and in such a spirit that the Commission wishes to note its appreciation. New propositions, new proposals and new thoughts have found their way into this Report as a result of the evidence of those who came forward to help the Commission. Unquestionably, some of the evidence was of more assistance than other evidence.

Although the Commission held Public Hearings at various places, no matter was repeated at any location. The Commission was of the view that there was only one Hearing regardless of location.

A general view of the evidence received by the Commission at each of its three general locations is now set out, that is to say:

### **THE MALTON HEARINGS**

The Commission held Public Hearings at the Howard Johnson Motor Hotel, in The Borough of Etobicoke, near Malton Airport, hereinafter called the “Malton Hearings”, to make it more convenient for any private member of the public, any interested agency, any group or corporation and any representative of any Provincial, Regional or Municipal Government to adduce evidence before the Commission on matters which might be of more direct concern to such persons living or situated near that location.

The Ministry of Transport, Canada, adduced evidence before the Commission at the Malton Hearings in respect to; the present development of Malton Airport; airspace organization and management in a two-airport system (Malton and Pickering); a summary of forecasts of airport demand for the central Ontario market up to the year 2000 including passenger forecasts, cargo forecasts, air carrier movements, general aviation movements forecasts of STOL patronage for the Toronto region; noise exposure forecasts to the year 1985, based upon Malton as the only airport, based upon the site near Pickering as the only airport and based upon a two-airport system consisting of Malton and Pickering; the attitudinal response of a community to aircraft noise; runway capacity; wake turbulence; and forecasts of ground access travel demands for the year 2000, based upon domestic and trans-border short-haul flights assigned to Malton and international, charter, and long-haul trans-border flights assigned to Pickering.

The evidence of the Ministry of Transport, Canada, was adduced before the Commission on each topic by a chief witness or witnesses who dealt with a particular topic and submitted into evidence, as exhibits, various reports and charts. The chief witness or witnesses together with the personnel who were involved with him, or them, in the preparation of a report were subjected to cross-examination. The witnesses of the Ministry of Transport, Canada, were followed by witnesses on behalf of various groups and witnesses who appeared on their own behalf. All were subjected to cross-examination.

### **THE PICKERING HEARINGS**

The Commission held Public Hearings at Pickering High School, Pickering, Ontario, and in the Pickering Community Hall, Brougham, Ontario, hereinafter called the "Pickering Hearings". Once again, the Pickering locations were selected for the convenience of the public living in that area.

At these Hearings, residents, interested groups and municipalities in the surrounding area were heard first, followed by witnesses on behalf of the Ministry of Transport, Canada. Again, all witnesses were subjected to cross-examination.

At these Hearings, evidence was heard in respect to the following topics : airspace organization and management in a two-airport system; runway concept evaluation for a second international airport; noise disturbance forecasts; the affects of flight paths and the new Toronto Zoo; economic impact of the area; distribution of growth in the Toronto-Centered Region; agricultural land use within the proposed new international airport site boundaries and the on-going role of agriculture on airport lands; bird population and movements associated with proposed site of the new international airport; possible hazard from birds to future aircraft traffic; the effect of noise on animals; recreation land in vicinity of the proposed new international airport; and recommendations re Duffin's Creek.

### **THE TORONTO HEARINGS**

The Toronto Hearings were held at 155 University Avenue, Toronto.

At these Hearings, evidence was heard from witnesses from the Ministry of Transport, Canada, various municipalities, corporations, and individuals and interested groups.

Evidence was heard in respect to the following: forecasts as to the traffic volume of passengers, aircraft movements and air cargo to the year 2000; as to the inconvenience of the proposed site of the second new international airport; as to the unsuitability of the site proposed in relation to on-site and off-site facilities that will be required to be built such as roads, railways, guideways, helicopter facilities; new technology such as new aircraft, including STOL, new noise abatement equipment and procedures, new navigational equipment and procedures; possible high speed public transportation systems; general aviation; dual lane runway concept; architectural and historical significance of certain buildings on the proposed site; the role of the proposed new international airport; including, flight sector assignment; passenger convenience of on-site and off-site terminals; and ground access to the proposed new airport.

Again, all witnesses were subjected to cross-examination.

### **SPECIAL PUBLIC HEARINGS AT TORONTO**

As has been previously mentioned in this Report, the Commission, prior to the commencement of its Public Hearings, published and circulated a Schedule as to the dates of the Public Hearings and as to the topics which would be considered at each Public Hearing. The Schedule showed the Public Hearings extending from March to early June, 1974.

Many municipalities participated in the Public Hearings held by the Commission even though some of them had only been organized as of January 1, 1974. In all cases, with the exception of The Regional Municipality of Durham, the municipalities filed evidence statements within the time limits mentioned in the Schedule of Public Hearings. Although The Regional Municipality of Durham did not file its evidence statement in respect to the topic to which it related within the time specified in the Schedule of Hearings, its evidence statement was received at one of the later Public Hearings.

In March, Counsel for the City of Toronto advised the Commission that it might not be possible for the City of Toronto to file



an evidence statement within the time fixed by the Commission for receiving an evidence statement for a particular topic as a study was being prepared for the City of Toronto which might not be completed in time. Counsel for the City of Toronto also advised that the study would not deal with just one topic but with many topics being considered by the Commission. The Commission advised Counsel for the City of Toronto that the study of the City of Toronto could be considered as a separate matter at any time before the Public Hearings were completed.

After the completion of the scheduled Public Hearings, including the obligation on the part of anyone who submitted an evidence statement to appear before the Commission and submit to cross-examination on his evidence statement, it was announced that a study had been submitted to the Mayor and Council of the City of Toronto prepared by Diamond & Myers, Jack B. Ellis & Associates Limited and the Institute of Environmental Research Inc. styled, "Pickering Impact Study." It was also stated in the news reports that the study established that there was no need for the new Pickering Airport.

When a summary of the study was given to the Executive Committee of the City of Toronto by the authors of the study, one of the authors of the study, J.B. Ellis, made a statement that the forecasts of passenger growth by the Ministry of Transport, Canada, were not only exaggerated but that at a private meeting held with some of the experts of the Ministry, those experts agreed with his much reduced forecasts.

Commission Counsel wrote to the Mayor and Council of the City of Toronto requesting a copy of the study and the names and qualifications of the persons who had been involved in the preparation of the study. The requested material was not received.

The statement of J.B. Ellis that consultants to the Ministry of Transport agreed with his much reduced forecasts of passenger growth raised the question that the Commission may have been misled by witnesses who appeared before it and testified on behalf of the Ministry of Transport, Canada as to forecasts. News reports as to the conclusions made in the study raised the inference that the Pickering Impact Study did contain new evidence as to (1) forecasts and (2) noise disturbance from aircraft operations. Under the circumstances, the Commission decided that it should hold a

Special Public Hearing to receive the Pickering Impact Study. Commission Counsel was authorized to subpoena the persons believed to be involved in the preparation of the study. Commission Counsel wrote to the Mayor and Council of the City of Toronto to advise the course of action which had been adopted by the Commission.

Shortly after Commission Counsel had written to the Mayor and Council of the City of Toronto, the City of Toronto passed a resolution that a copy of the Pickering Impact Study be forwarded to the Commission and that the Commission be requested to hear as witnesses representatives of the Study Team in support of the Pickering Impact Study.

The Study submitted to the City of Toronto dealt with (1) forecasts of passengers to the year 2000; (2) disturbance by noise from aircraft operations; (3) forecasts of runway capacity, cargo, ground access; and (4) other matters which in the main were of concern only to the City of Toronto, such as, the impact of a Pickering Airport on planning considerations for the City of Toronto, the economic implications to the City of Toronto of a Pickering Airport, environmental considerations, the Province of Ontario's Toronto Centred-Region design and the Province of Ontario's strategic planning for its Central Ontario Lakeshore Urban Complex.

Volume II of the Pickering Impact Study contained two very serious statements, firstly that consultants to the Ministry of Transport, Canada, had advised the authors of the Pickering Impact Study that they had recomputed the Empiric model upon which passenger forecasts were made and a very different set of forecasting equations emerged, and secondly that in an informal conversation with one of the senior consultants to the Ministry of Transport, Canada, the Ministry consultant agreed with the authors of the Pickering Impact Study that the overall constraint value used by the authors of the Pickering Impact Study in preparing forecasts of passenger growth was the proper one that should be used.

An Organizational Hearing was held by the Commission on July 31, 1974 in preparation for the Public Hearing to receive evidence in support of the Pickering Impact Study. It was learned at the Organizational Hearing that the Pickering Impact Study was basically prepared by A.J. Diamond, J.B. Ellis and H.P.M.

Homenuck, all of whom are professors at York University. It was also learned that the report contained little, if any, original data and research and that it was basically a personal assessment by the authors of then existing data, exhibits, and testimony, much of which had already been presented to the Commission, in particular evidence as to (1) forecasts and (2) noise.

At the Public Hearing held August 20, and August 21, 1974, Messrs. Diamond, Ellis and Homenuck endorsed collectively and individually the comments and conclusions in the study. It was as Mr. Diamond described "a team effort".

J.B. Ellis gave evidence on behalf of himself, A.J. Diamond and H.P.M. Homenuck in respect to the part of the report which dealt with (1) forecasts for passenger volumes, (2) noise disturbance from aircraft operations, (3) runways, (4) cargo requirements, (5) terminals, and (6) ground access. In cross-examination, Professor Ellis admitted that he had no expertise in the forecasting of air passenger growth, although he did have some experience in making forecasts for recreational purposes; that he had no expertise in noise disturbance from aircraft operations; that he had no expertise in runway or terminal capacity and that he had no expertise in ground access to airports. He admitted that he had only read part of the exhibits and part of the transcripts of the testimony of the evidence adduced before the Commission. Cross-examination of Professor Ellis revealed that many of the statements in the study in relation to these topics were based on a misunderstanding or lack of knowledge of the entire evidence and were misleading and erroneous.

Professor Ellis in cross-examination stated that there were only two consultants to the Ministry of Transport, Canada with whom he had had informal discussions in respect to the forecasts. The two consultants were called under oath by Counsel for the Government of Canada in reply. They unequivocally contradicted and rejected the account of Professor Ellis as to the nature of their conversation. The Commission has no hesitancy in accepting the account of the two consultants as to the nature of the conversation and disbelieves Professor Ellis.

There was no cross-examination in respect to the other matters considered in the report because, as stated, there was a general acceptance that those matters were beyond the terms of reference

of the Commission and were of concern to the City of Toronto alone in its broader planning purposes. Accordingly, the Commission makes no comments as to the statements and conclusions in the study in respect to those items. However, anyone who reads and considers those portions of the study should do so guardedly in view of the lack of professionalism that was shown in respect to the portions of the report that were considered by the Commission and which were found not credible as a result of cross-examination at the Public Hearing.

In sum, there were two basic matters which were fundamental to the credibility of the entire Pickering Impact Study, namely, (1) forecasts of volume of passengers, and (2) forecasts of noise disturbance from aircraft. Notwithstanding that these two matters were so vital, no person who prepared any portion of the study, including Professor Ellis, had any knowledge or experience to enable them to be competent to give an opinion on either (1) forecasts or (2) noise. Yet, Professor Ellis and other authors of the study purported to criticize the opinions of others who had given expert opinion before the Commission on both these matters, and who were qualified to give such opinions in those two fields.

Under the circumstances, the Commission can give no credence to the unsupported opinions of Professor Ellis and his associates, in respect to (1) forecasts and (2) noise, and rejects them.

### **Other Sources**

The Commission has had the advantage, in addition to the testimony and exhibits at its public hearings, also of reading many studies, and other literature from sources all over the world germane to the air transportation industry, and also to have discussed the many facets of this industry with many persons actively engaged therein throughout the United States and Europe.

### **APPLICATION TO FEDERAL COURT OF CANADA FOR PROHIBITION**

An application by one Charles Morris Godfrey "on behalf of himself and as Chairman of People or Planes" was brought in the Federal Court of Canada against the Airport Inquiry Commission



and the three Commissioners asking for an order prohibiting the Airport Inquiry Commission “from conducting further proceedings or making any report in respect to proceedings already had upon the alleged grounds (1) that one of the Commissioners, Murray V. Jones, was biased in law, and (2) that the Airport Inquiry Commission has failed to exercise the jurisdiction conferred upon it by Order in Council P.C. 1973-3026”.

The application was dismissed.<sup>1</sup>

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<sup>1</sup> Counsel advised as follows:

The Attorney General of Canada intervened in the proceedings and brought an application to quash the proceedings of Godfrey et al. Counsel on behalf of the Commissioners also brought an application to quash the proceedings of Godfrey et al. Prior to the date fixed for the hearing of the applications in the Federal Court of Canada, counsel on behalf of Godfrey et al requested counsel for the Attorney General of Canada and counsel for the Commissioners to consent to a termination of the proceedings. As the proceedings were of a nature that could only be terminated by leave of the Court, the application of Godfrey et al for the termination of the proceedings was considered by the Court on August 12, 1974. After hearing representations on behalf of counsel for Godfrey et al, the Commissioners and the Attorney General for Canada, the Court made an order dismissing the proceedings brought by Godfrey et al and ordered that Godfrey et al shall not take any other proceedings or commence any other action against the Commission or against the Commissioners individually or collectively in respect to any matter or cause based on or arising out of the conduct of the Commissioners in carrying out the terms of Order in Council, P.C. 1973-3026. With the consent of counsel on behalf of the Attorney General of Canada and on behalf of the Commissioners, the Court made no order as to costs.





## **CHAPTER II**

### **Historical Review of Toronto International Airport Requirements of Central Ontario Market to January 30, 1973.**

I. **1936-1939** In 1936, it was decided to establish Trans Canada Airlines (now Air Canada) and to build an airport for Toronto. The Toronto Harbour Commission, as representative of the Department of Transport, Canada, after inspecting and examining a number of sites decided upon Malton which was in the centre of a farm area near Toronto and consisted of 1,400 acres. The choice was made as it was believed that this area would remain beyond any built-up section. To-day the original area comprises only the north-east corner of the present airport at Malton. Building began in September, 1937, and was completed by the end of November, 1938.

The airport when completed, had three runways, 14/32, 10/28, 05/23, arranged in a triangle to give maximum wind coverage. Each runway was 3,000 feet long and 150 feet wide. A hangar was constructed by Trans Canada Airlines, and one of the farm buildings, in those modest early beginnings, was used as a passenger terminal, for communications and weather service.

II. **1938** On October 18, 1938, the Trans Canada Airlines commenced scheduled air service at Malton. Lockheed 14 aircraft accommodating 14 passengers made fewer than ten flights a day. The staff consisted of approximately 175 people.

III. **1939** The Toronto Harbour Commission, with Federal assistance, constructed a frame terminal building which with various extensions served the airport until after World War II.

IV. **1939-1945** During the war years, the airport was used by scheduled airlines, Trans Canada and American Airlines. It was also used as an elementary flying training school, as an air observers' school of the British Commonwealth Air Training plan and by Victory Aircraft to test airplanes.

V. **After the War.** Increased traffic brought more and larger aircraft after the war. To meet these needs, Trans Canada Airlines constructed a new hangar 1,800 feet long for servicing its aircraft. As well, a new terminal building was opened at Malton in 1949. The old terminal building was used as an operations and administrative building.

VI. **The 1950's.** By the early 1950's, more than half a million passengers a year were using Malton and rapid growth was continuing. In 1954, the turbo-prop Viscount was introduced. In 1954, an expansion of the airport was needed to meet future demands. In the same year, additional land was purchased. The first proposal to enlarge the airport was to build major runways, one in the 14/32 direction, one in the 05/23 direction and one in the 10/28 direction. Four terminal buildings, similar to the present Terminal I, were proposed and planned to accommodate 12.8 million passengers a year.

VII. **In 1957.** The runway in the 14/32 direction was extended from 6,000 feet to 11,000 feet. By 1958, the original site of 1,400 acres had been increased about two and a half times to 3,360 acres and plans for expanding the airport had been completed. At this time, before the introduction of jet aircraft for passenger service, noise was not a major problem.

VIII. **1962-1965** A new runway 05R/23L, 9,500 feet long, planned in 1958, was completed in 1962 and subsequently improved by building parallel taxiways and strategically located runway exits to increase capacity.

IX. **1964** The first of the four circular terminals, planned in 1958, was opened. New facilities for cargo and aircraft maintenance were built, and the airport area was increased to its present 4,272 acres.

**X. 1965-1967** In 1964, passenger volume forecasts made by the Department of Transport, Canada, estimated 6.9 million passengers enplaned/deplaned a year by 1980.

The 1958 plan for the airport had been based on the assumption that the 1960's would bring a reduction in the growth of air travel. This proved to be wrong. Revised estimates, indicated that Malton would have to serve 13 million passengers a year, perhaps by the late 1970's rather than in the 1980's.

As a result of the latter forecasts, the Minister of Transport, Canada, in 1966 initiated studies of this problem. The studies indicated continued great growth in air transportation. Three thousand acres of land beyond the west limit of the present airport boundary, it was said, would have to be acquired. Additional runways, terminals, aircraft parking aprons and other ground facilities, it was said, would have to be built. These latter facilities would have to be developed to the east and to the west of the existing runway 14/32.

Three important conditions would have to be implemented to make this new plan a success. Additional land, it was said, would have to be acquired taking into account the planned and potential uses of the land for other purposes. This proposal, it was said, would have to take into account the communities surrounding the airport, the potential conflict between existing uses and planned uses and the limits to those uses that would result from flight operations. Also, adequate ground transportation, having regard to existing and planned highways of the Province of Ontario, would have to be taken into account to provide access to the airport.

**XI. Summer of 1968.** The Department of Transport, Canada, announced the said proposal in the summer of 1968. It was widely discussed with municipal and provincial authorities. A special Intergovernmental committee of representatives from the Federal, Provincial, and Municipal Governments was established to examine and study the plan and the effects it would have on existing communities and on the provincial and municipal plans for the area. In addition, public meetings were held to discuss the plan, and although there were some favourable comments, there were a great many more objections.

The intergovernmental committee held six technical meetings at which the Ministry of Transport, Canada, the Government of

the Province of Ontario, and the Municipal Corporations of Metropolitan Toronto, Mississauga, Chinguacousy, Brampton, Etobicoke, and Streetsville were represented. In the opinion of the committee, the concentration of virtually all air traffic, and especially the long-haul international traffic, at Malton would result in a vast increase in the area of land affected and the number of people disturbed by flight operations. Using the Composite Noise Rating, (CNR), system, the said committee estimated that some 68,000 people, already residing in the area in 1968, could be affected at the 100 CNR level by 1985 if the proposed plan was implemented. In 1965, only 10,000 to 15,000 had been so affected.

The municipal representatives on the committee were concerned about the need to zone land adjacent to Malton which would be affected by the proposed expansion. They were concerned about the effect that this control would have on the plans of the nearby communities for growth. These plans included the building of single and multiple homes, the tripling of housing units, building hospitals and industrial areas for an estimated 190,000 people. In some instances, the land had already been serviced for development and controls for airport development on these lands would have serious effects on the environment and economic vitality of these communities.

Another problem which would result from the proposed expansion was the need to relocate Dixie Road, a main thoroughfare.

Because of these factors and demands of residents in the respective municipalities, the municipal members of the committee concluded that the airport should not be expanded as proposed. The committee was of the opinion, however, that a limited expansion might be undertaken while the Ministry of Transport, Canada, searched for and decided upon a long term solution.

**XII. December, 1968.** The Ministry of Transport, Canada, having listened to and considered the many objections to its proposed plan, announced in December, 1968, that the Toronto International Airport Malton, would not be expanded beyond its present boundaries, and expansion within its present boundaries would only be done to accommodate traffic until a second international airport could be opened.



In the meantime, two programmes were planned to accommodate the traffic until 1976. First, new facilities were to be constructed, extending runway 05L/23R to 10,000 feet, strengthening runway 14/32, building new taxi-ways and a new terminal (Terminal II), which is in operation at present. The second programme was to establish guidelines to discourage further development close to Malton which would be incompatible with flight operations. This second programme took into account the amount of traffic forecasted for 1976, a better use of runways to reduce disturbance, and a three-runway system which had been announced earlier and was considered necessary for the needs of the 1970's.

**XIII. October, 1969.** The Government of the Province of Ontario suggested land use controls in October, 1969, for the communities which surround Malton, some of which have been implemented.

**XIV. 1969** By early 1969, the Government of Ontario was working out a design of development for the Toronto region and other economic regions to the year 2000.

**XV. 1968-1969** After the decision to limit the expansion of Toronto International Airport, Malton, work commenced on finding a suitable site for a second Toronto International Airport.

It was said that over 50 sites were considered which were narrowed to four as representatives for further study. These sites, north (Lake Simcoe), east (Lake Scugog), west (Guelph) and northwest (Orangeville) received greater study.

It was said that additional criteria was used to select the best site, namely, safety and technical aviation considerations, social and environmental effects, regional planning, and passenger convenience.

It was said that detailed studies were made by the Ministry of Transport, Canada, and the Government of the Province of Ontario. It was said by the Ministry of Transport, Canada, that three of the four areas presented substantial drawbacks, and that the preferred area of the four, Guelph, would result in air traffic control conflicts with Malton and would conflict as well with regional development plans.

**XVI. 1970** By the spring of 1970, it was said, that the problems in all four sites mentioned above had been identified, and the Government of Canada conducted a review of the progress

made so far. The review concluded that greater consideration should be given to alternate airport systems, including possible roles for Malton.

In studying alternative airport systems, the possibility of closing Malton and using solely a new airport at Guelph was considered. It was said that there were objections to this plan. Malton is convenient for Toronto and for other parts of central Ontario, and a great deal of money from the Federal and Provincial governments and private sources had been invested at Malton.

Also, as part of this review of a system of airports, it was said, the Government of Canada began to examine ways to expand Toronto International Airport within the existing boundaries to determine if any of these alternatives could meet the needs of the future and at the same time avoid extensive noise disturbance. This approach was termed “reconfiguration”. It was said that studies indicated that this could not be done.

### **The Toronto-Centered Region**

The design for the Toronto-Centered Region was defined by the Province of Ontario in 1970. It extends from Hamilton, Brantford, Kitchener—Waterloo, in the west to Peterborough, Port Hope, and Cobourg in the east, and Midland and Lake Simcoe to the north. This area constitutes the central Ontario region and is one of the five economic regions defined by the Government of the Province of Ontario.

### **Investigation of the Site Near Pickering**

A site near Pickering, it was said, was examined using the same five criteria used when investigating the other sites: safety and technical aviation considerations, social and environmental effects, regional planning impact, passenger convenience and cost.

The Province of Ontario, it was said, as part of the joint Federal and Provincial evaluation, undertook an appraisal of the environmental impact of airport construction and operation and found no major environmental problems with the Pickering site.

## **Regional Planning Impact**

The Government of Ontario, it is said, prepared a design for the broad region that includes Hamilton, Toronto, Oshawa and north to Georgian Bay. This region is called the Toronto-Centered Region. The design envisages that in some areas there will be a reduction of the pressures of urbanization and in other areas improved economic and social opportunities. The intention of the plan is to accelerate growth in the area east of Toronto.

It was said that the Government of the Province of Ontario evaluated the Pickering site in the light of the Toronto-Centered Region plan and found it suitable, with some adjustments. These adjustments resulted in defining a new community, the North Pickering Community, on 25,000 acres of land south of the Pickering site. The Government of Canada agreed to act in close cooperation with the Government of the Province of Ontario, as is evidenced by the so-called Annex of Understanding (part of Exhibit 7), and the joint announcement of the site for the new airport.

At the same time, the Government of the Province of Ontario announced the said North Pickering Community Development Project to develop a new community adjacent to the airport. It was said that agreement in principle had been reached also between the Government of Canada and the Government of the Province of Ontario that the Province under the *Planning Act* would make sure that the development of lands would be compatible with flight operations. Such are formally recorded in sections 3 and 4 of the Annex of Understanding between the two Governments, which reads as follows:

“3. The Government of Ontario has agreed to act within the full extent of its legislative authority to ensure that lands exposed to 95 CNR contour, or equivalent and above, will be controlled to prevent development inconsistent with airport operations. The Government of Ontario has agreed to issue a Ministerial Order under Section 32 of the Planning Act, subject to item 4 below, establishing development controls on lands to which the statute is applicable within the area between the CNR contour of 95 or its equivalent, for the final runway configuration for ultimate airport development, and the airport boundary. It will also recommend against local zoning changes or severances inconsistent with such development controls. The Government of Ontario will discuss with local municipalities

the development or modification of existing plans so as to seek to make them consistent with airport operations. When such consistency is achieved the Minister may withdraw direct Provincial controls.

4. For land between the 95 CNR contour or equivalent, and the airport boundary, the Federal Government has agreed to assume financial responsibility for claims that may result from existing developed and operative uses being incompatible with the uses permitted under the development controls introduced under Section 3 above.”

### **XVII. 1972 – 1973**

As a result of these decisions of the two Governments, the Government of Canada expropriated the lands comprising the proposed site for a new international airport at Pickering.

As provided for by the new Federal *Expropriation Act*, formal objections were received and recorded. A Hearing Officer was appointed and public hearings were conducted. He prepared “a resumé of the evidence and submissions relating to the nature and grounds of the objections made” and filed it with the Government of Canada prior to January 30, 1973. This report was tabled in the House of Commons, Ottawa by the Minister of Public Works on January 30, 1973.

### **XVIII. The Decision of the Government of Canada January 30, 1973**

After receiving the Hearing Officer’s report, the Government of Canada decided to confirm the expropriation of the site for a new Toronto International Airport near Pickering and on January 30, 1973, the Minister of Public Works announced to the House of Commons the decision to confirm the expropriation and tabled a statement by the Minister of Transport which summarized the position as follows:

“Fundamentally, it is a choice either enlarging Toronto International Airport Malton or developing a new airport. Clearly failure to meet the growing demand is not an acceptable option for the people of the region, for Ontario and for the nation. And in the balance of the number of people disrupted, the economic and planning advantages gained and the capacity of air transportation achieved, Pickering is preferable.”

## CHAPTER III

### **Response of Airport Inquiry Commission to the Questions Asked in Order in Council P.C. 1973-3026 dated October , 1973**

#### **A.**

In this Chapter, the Commission sets out its reply to each of the questions on which the *Order in Council* directed the Commission to inquire into and to report. In order that the answers to the questions may be readily and easily ascertainable, the Commission does not in this Chapter set out the background and reasoning upon which its answers are founded, nor the evidence upon which it based its answers. The Commission sets out in Chapter IV of this report, in detail, the evidence which it accepted and upon which it based its answers.

#### **B.**

*Order in Council* P.C. 1973-3026 dated October 5, 1973, recited that the Government of Canada has made the following decisions in relation to the air transportation needs of the central Ontario market;

1. Toronto International Airport, Malton, will not be expanded beyond its present boundaries in order not to further increase the degree of disturbance from flight operations to the



people now living in communities surrounding Toronto International Airport, Malton;

2. The air transportation needs of the central Ontario market require that there be established another international airport in addition to Toronto International Airport, Malton;

3. The Government of Canada has chosen a site near Pickering, Ontario, to be the location for the new international airport.

In respect to those decisions, the Government of Canada wished to provide a means of receiving New evidence as to the need for and location of such an airport and New evidence of any relevant factor that had not been considered by it. In addition, the Government of Canada wished to receive any evidence in respect of other matters necessarily interrelated to and affected by its said decisions.

### C.

The said *Order in Council* directed that a Commission be established, to be known as the "Airport Inquiry Commission", which would be a Commission pursuant to Part I of the *Inquiries Act*. The Commission was directed to inquire into and to report upon the air transportation needs of the central Ontario market in respect to two broad categories designated as numbers 1 and 2. Category No. 1 was divided into two questions, one question respecting need and the other question respecting location. Category No. 2 set out a series of questions.

In respect to the questions posed in the said *Order in Council*, in each category, the Commission, for the purposes of its Public Hearings, prescribed them in a Schedule of Hearings divided into what it called "Phase I" and "Phase II", questions. (See copy of Schedule of Hearings, Appendix 4 to this Report.)

### CATEGORY NO. 1

The Commission was directed in relation to the decisions that there is a need for a new International Airport for the central Ontario market and that the new International Airport be located on the site near Pickering, Ontario, to receive and record New evidence, if available, and, if available and adduced, to report on such New evidence in respect to the following questions: (a)

respecting need, and (b) respecting location. The Commission now sets out the questions asked under each of these topics, the manner in which the Commission considered the evidence in respect to each of these topics and its response to each question raised under these topics.

## **1. (a) Respecting Need**

### **I. (Order in Council Question)**

Is there any New Evidence as to what is the expected maximum passenger traffic volume in the domestic, trans-border and international air traffic market for the year 1980 and what are the best estimates of the rates of growth beyond 1980.

For the purpose of receiving evidence in respect to this question posed by the said *Order in Council*, the Commission held a Public Hearing at the City of Toronto, commencing April 22, 1974, under Phase I, Question 3 of its Schedule of Hearings. The relevant part of Question 3 was as follows:

### **(Commission Question)**

3. The Government of Canada has made forecasts as to the traffic volume of passenger, air cargo and aircraft movements to the year 2000. The questions for consideration are:

- A. 1) Is there any new evidence as to what is the expected maximum passenger traffic volume in the domestic, trans-border and international air traffic markets for the year 1980?  
2) For the year 1990?  
3) For the year 2000?

There was New evidence as to such maximum figures, and also evidence of probable figures.

The evidence of the Ministry of Transport, Canada, included figures of the maximum, the median and the minimum. The evidence of the maximum forecast of the Ministry of Transport, Canada, was as follows:

<u>Year</u>	<u>Forecast</u>	
1980	16 Million	(Enplaned and deplaned passengers including originating, terminating and interconnecting.)
1990	35 Million	
2000	68 Million	

Apart from the forecast of Diamond and Myers, which was also maximum figures, forecasts of most probable figures were received from the Ministry of Transport, Canada, deHavilland Aircraft of Canada, Limited, Air Canada, Thomas Sullivan, John Kettle and John Duggan.

This New evidence (as to the expected volume for enplaned/deplaned passengers) for each of these periods was adduced by way of oral testimony and documents which were filed as Exhibits 414A and 414B, submitted by the Ministry of Transport, Canada, Exhibit 469 submitted by the deHavilland Aircraft of Canada, Limited, oral testimony on behalf of Air Canada, Exhibits 556A and 556B, submitted by Diamond and Myers, Jack B. Ellis & Associates Limited and the Institute of Environmental Research Inc., and oral testimony by Thomas Sullivan, John Kettle and John Duggan.

The New evidence in respect to the questions under said paragraph 3A is in respect to probable figures, and not maximum figures (which latter is what was called for in the question), was as follows:

- A. 1) In respect to the year 1980.
  - (i) Ministry of Transport — 15 Million.
  - (ii) deHavilland — approximately 14 Million.
  - (iii) Air Canada<sup>1</sup>
  - (iv) Diamond & Myers, etc. (1981) — 13.513 Million
  - (v) Kettle (1980) — 10 to 11 Million<sup>2</sup>
- A. 2) In respect to the year 1990.
  - (i) Ministry of Transport — 29.4 Million.
  - (ii) deHavilland — approximately 27 Million.
  - (iii) Air Canada — see above.
  - (iv) Diamond & Myers etc. (1991) — 19.17 Million.
  - (v) Kettle (1990-1991) — 17-18 Million.
- A. 3) In respect to the year 2000.
  - (i) Ministry of Transport — 52 Million.
  - (ii) deHavilland — 43 Million
  - (iii) Air Canada — see above.
  - (iv) Diamond & Myers, etc. — 21.36 Million.
  - (v) Kettle — 25 Million

The probable forecasts of the Ministry of Transport, Canada, listed above are accepted by the Commission as its response to these questions.

### **1. (a) Respecting Need**

#### **II. (Order in Council Question)**

Is there any New evidence that Toronto International Airport Malton, can be expanded to meet all reasonable needs, having regard to runway capacity, ground access, terminal capacity and number of people affected by disturbance from flight operations for the period up to 1980, 1990 and 2000.

For the purpose of receiving evidence in respect to this question, the Commission held a Public Hearing in the Borough of Etobicoke, near Malton, commencing March 18, 1974, under Phase I, Question 1 of its Schedule of Hearings. The relevant part of Question 1 was as follows:

#### **(Commission Questions)**

1. The Government of Canada has made forecasts as to the volume of passenger, air cargo, and aircraft movements in the central Ontario market to the year 2000. On the basis of these forecasts, (without receiving any New evidence at this time as to the validity of these forecasts as such evidence will be received at subsequent hearings), in relation to the following questions of fact, is there any New evidence that Toronto International Airport, Malton, can be expanded or reconfigured within present boundaries to meet all reasonable needs to the year 1980, to the year 1990, and to the year 2000, that is to say:
  - 1) Can the forecast growth of air traffic be met without increasing the number of people affected by noise disturbance from aircraft?

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1 Original figures were remarkably close to those of the Ministry of Transport, Canada, but due to recent fuel and other cost increases, Air Canada was of the view that its figures should be reconsidered.

2 The Kettle forecast omitted the calibration factor which plays a significant role in the total forecast. The Commission cannot place reliance upon his forecast.

- 2) Can the runway capacity be extended to meet the forecast growth of air traffic?
- 3) Can the terminal capacity be increased to meet the forecast growth of air traffic?
- 4) Can ground access be provided to meet the forecast growth of air traffic?

In respect to these questions, the Commission reports as follows:

- 1.1) To the year 1980 – NO.  
To the year 1985<sup>1</sup> – NO.  
To the year 1990 – MAYBE.  
To the year 2000 – NO.
- 2) To the year 1980 – YES.  
To the year 1990 – YES.  
To the year 2000 – NO.
- 3) To the year 1980 – YES.  
To the year 1985<sup>2</sup> – MAYBE.  
To the year 1990 – NO.  
To the year 2000 – NO.
- 4) To the year 1980 – YES.<sup>3</sup>  
To the year 1990 – The Commission is unable to answer due to lack of evidence.  
To the year 2000 – The Commission is unable to answer due to lack of evidence.

### **1. (b) Respecting Location**

#### **I. (Order in Council Question)**

Is there any New evidence to prove that the site near Pickering, Ontario is not suitable for the new International Airport for the central Ontario market having regard to:

- (i) disturbance from flight operations,

For the purpose of receiving evidence in respect to this question, the Commission held a Public Hearing at Pickering, Ontario,

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<sup>1</sup> The year 1985 is interjected, although it did not appear in the questions, as the nature of the evidence indicated that a change may take place between 1985 and 1990.

<sup>2</sup> The year 1985 is interjected, although it did not appear in the questions, as the evidence indicated that on the basis of the probable forecast of enplaned/deplaned passengers Malton would have terminal capacity until 1984 or 1985.

<sup>3</sup> Provided planned highways are constructed.



commencing April 8, 1974, under Phase I, Question 2.1 of its Schedule of Hearings. The relevant part of Question 2.1 was as follows:

**(Commission Question)**

2. In relation to the following three questions of fact, is there any New evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:

- 1) Is this site not suitable because of the number of people that will be affected by noise disturbance from aircraft?

The Commission reports in respect to this question as follows:  
There is no New evidence that this site is not suitable because of the number of people that will be affected by noise disturbance from aircraft.

**1. (b) Respecting Location**

**II. (Order in Council Question)**

Is there any New evidence to prove that the site near Pickering, Ontario is not suitable for the new International Airport for the central Ontario market having regard to

- (ii) passenger convenience,

For the purpose of receiving evidence in respect to this question, the Commission held a Public Hearing at the City of Toronto, commencing April 22, 1974, under Phase I, Question 3.B.1) of its Schedule of Hearings. The relevant part of Question 3.B.1) was as follows:

**(Commission Question)**

3.B. In relation to the following question (s), is there any New evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:

- 1) Is this site not suitable because of passenger inconvenience?

The Commission reports as to this question as follows:  
There is no New evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market having regard to passenger convenience.

**1. (b) Respecting Location**

**III. (Order in Council Question)**

Is there any New evidence to prove that the site near Pickering, Ontario is not suitable for the new International Airport for the central Ontario market having regard to

(iii) regional economic effect,

For the purpose of receiving evidence in respect to this question, the Commission held a Public Hearing at Pickering, Ontario, commencing April 8, 1974, under Phase I, Question 2.2) of its Schedule of Hearings. The relevant part of Question 2.2) was as follows:

**(Commission Question)**

2. In relation to the following .. question .. of fact, is there any New evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:

2) Is this site not suitable because of regional economic effect?

The Commission reports as to this question as follows:

There is no New evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market having regard to regional economic effect.

**1. (b) Respecting Location**

**IV. (Order in Council Question)**

Is there any New evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market having regard to

(iv) total environmental effect, positive and negative,

For the purpose of receiving evidence in respect to this question, the Commission held a Public Hearing at Pickering, Ontario, commencing April 8, 1974, under Phase I, Question 2.3) of its Schedule of Hearings. The relevant part of Question 2.3) was as follows:

**(Commission Question)**

2. In relation to the following .. question .. of fact, is there any New evidence to prove that the site near Pickering, Ontario, is

not suitable for the new International Airport for the central Ontario market, that is to say:

- 3) Is this site not suitable because of total environmental effect?

The Commission reports on this question as follows:

There is no New evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market having regard to total environmental effect, positive and negative.

### **1. (b) Respecting Location**

#### **V. (*Order in Council* Question)**

Is there any New evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market having regard to

- (v) facilities required, including related infrastructures such as roads, railways, guideways and helicopter facilities,

For the purpose of receiving evidence in respect to this question, the Commission held a Public Hearing at Toronto, Ontario, commencing April 22, 1974, under Phase I, Question 3.B.2) of its Schedule of Hearings. The relevant part of Question 3.B.2) was as follows:

#### **(Commission Question)**

3.B. In relation to the following question(s), is there any New evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:

- 2) Is this site not suitable because of the on-site and off-site facilities that will be required to be built, such as roads, railways, guideways, helicopter facilities, etc.?

The report of the Commission in respect to this question is as follows:

There is no New evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market having regard to facilities required including related infrastructures such as roads, railways, guideways and helicopter facilities.

**1. (c) Relevant Factors Not Previously Considered by the Government of Canada**

**(Order in Council Question)**

Generally, is there any New evidence of any relevant factor that has not been considered by the Government of Canada, such, for example, as established facts on technology or travel habits, that may appear to affect any decision of the Government of Canada taken to date?

For the purpose of receiving evidence in respect to this question, the Commission held a Public Hearing at the City of Toronto, commencing May 6, 1974, under Phase I, Question 4.1) of its Schedule of Hearings. The relevant part of Question 4.1) was as follows:

**(Commission Question)**

4. In relation to the decisions of the Government of Canada that there is a need for a new International Airport for the central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario, New evidence, if available, will be received in respect to the following question:

- 1) Is there any New evidence of any relevant factor that has not been considered by the Government of Canada, such, for example, as established facts on technology or travel habits, that may appear to affect any decision of the Government of Canada taken to date?

The Commission reports on this question as follows:

Yes, there is New evidence of relevant factors that have not been considered by the Government of Canada in relation to the decisions of the Government of Canada that there is a need for a new International Airport for the central Ontario market and that such new International Airport be located on the site near Pickering, Ontario, such as noise abatement technology, separation standards required by wake turbulence, the energy crisis.

## **CATEGORY NO. 2**

There were certain matters necessarily interrelated to and affected by the decisions of the Government of Canada that Malton Airport would not be expanded beyond its present boundaries, that the needs of the central Ontario market require that another International Airport be established and that the site of the new International Airport be near Pickering, Ontario. In respect to these interrelated matters, the Commission was directed to receive and report on any evidence adduced, and if deemed advisable, to make recommendations in so far as they are within Federal Legislative competence in response to the certain questions therein mentioned. The questions in the *Order in Council* were seven in number extending from sub-paragraph (a) to sub-paragraph (g). Questions (a) to (c) inclusive, are closely related to each other and can be more conveniently answered together. Questions (d) to (e) are closely related to each other and can be more conveniently answered together.

The Commission now sets out the questions which it asked under each of the said questions, the manner in which the Commission received the evidence in respect to each of these questions and its response to each question.

### **(*Order in Council* Question)**

2. To receive and report on any evidence adduced and, if deemed advisable, to make recommendations in so far as they are within federal legislative jurisdiction in response to the following questions:

- (a) should the new International Airport be principally international in character or should it serve some other function,
- (b) what airline traffic sectors or parts thereof should be allocated to the new International Airport in the major first phase in order to relieve the disturbance caused by flight operations at Malton,
- (c) to what extent should domestic and United States traffic be served at the new International Airport in addition to the airport having an international role.

For the purpose of receiving evidence in respect to this question, the Commission held a Public Hearing at the City of Toronto,



commencing May 21, 1974, under Phase II, Question 1 of its Schedule of Hearings. The relevant part of Question 1 was as follows:

**(Commission Questions)**

1. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date that there is a need for a new International Airport for the central Ontario market, and that the new International Airport be located on the site nearing Pickering, Ontario.

To receive any evidence in respect to the following questions:

- 1) Should the new International Airport be principally international in character or should it serve some other function?
- 2) What airline traffic sectors or parts thereof should be allocated to the new International Airport in the major first phase in order to relieve the disturbance caused by flight operations at Malton?
- 3) To what extent should domestic and United States traffic be served at the new International Airport in addition to the Airport having an international role?

The Commission reports on these questions as follows:

The new airport should handle all international flights, with the exception of the United States flights, including scheduled and non-scheduled charter flights, pure freighter flights with necessary interconnecting short-haul domestic and trans-border flights. In addition, STOL facilities should be established for feeder services to regions without a major airport, and provision should be made for essential general aviation facilities.

**(Order in Council Question)**

2. To receive and report on any evidence adduced and, if deemed advisable, to make recommendations in so far as they are within federal legislative jurisdiction in response to the following questions:

- (d) Should the opening date of the major first phase be 1980 or later.

- (e) Should there be a partial or limited opening of the new International Airport prior to 1980?

For the purpose of receiving evidence in respect to this question, the Commission held a Public Hearing at the City of Toronto, commencing May 21, 1974, under Phase II Question 1.4) & 5) of its Schedule of Hearings. The relevant part of Question 1.4) & 5) was as follows:

**(Commission Questions)**

1. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date, that there is a need for a new International Airport for the central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario.

To receive any evidence in respect to the following questions:

- 4) Should the opening date of the major first phase be 1980 or later?
- 5) Should there be a partial or limited opening of the new International Airport prior to 1980?

The Commission reports on these questions as follows:

There should be no partial or limited opening of the proposed Pickering Airport and the airport should not open until such time as proper, permanent terminals and all structures have been completed and all airport facilities are functionally operational, as planned, and all necessary ground access to and from the airport has been established. The Commission is of the opinion that realistically, this will not be possible until 1982-1984.

**(Order in Council Questions)**

2. To receive and report on any evidence adduced and, if deemed advisable, to make recommendations in so far as they are within federal legislative jurisdiction in response to the following questions:

- f) what should be the nature of
- (i) the ground access to the new International Airport, and

- (ii) the inter-airport transportation between Toronto International Airport, Malton, and the new International Airport,

For the purpose of receiving evidence in respect to this question, the Commission held a Public Hearing at the City of Toronto commencing June 3, 1974, under Phase II, Question 2 of its Schedule of Hearings. The relevant part of Question 2 was as follows:

**(Commission Questions)**

2. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date, that there is a need for a new International Airport for the central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario.

To receive any New evidence in respect to the following questions:

- 1) What should be the nature of the ground access to the new International Airport?
- 2) What should be the nature of the inter-airport transportation between Toronto International Airport, Malton, and the new International Airport?

The Commission reports on these questions as follows:

Primarily highways by public motor vehicle transportation and private automobile, complemented by all other types of ground transportation, both public and private, plus STOL for feeder service.

**(Order in Council Question)**

2. To receive and report on any evidence adduced and, if deemed advisable, to make recommendations in so far as they are within federal legislative jurisdiction in response to the following questions:

- (g) from the point of view of passenger convenience, should a downtown terminal or terminals be established in respect of Toronto International Airport, Malton or the new International Airport?

For the purpose of receiving evidence in respect to this question, the Commission held a Public Hearing at the City of Toronto commencing June 3, 1974, under Phase II, Question 2.3) of its

Schedule of Hearings. The relevant part of Question 2.3) was as follows:

**(Commission Question)**

2. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date, that there is a need for the new International Airport for the central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario.

To receive any New evidence in respect to the following questions:

- 3) From the point of view of passenger convenience, should a downtown terminal or terminals be established in respect of Toronto International Airport, Malton, or the new International Airport?

The Commission reports on this question as follows:

No, except for passenger collection purposes.

In Appendix 6 to this Report, are the questions considered by the Commission at its Schedule of Public Hearings with references to the transcripts of the evidence in respect to the questions. In Appendix 7 to this Report is a copy of the minutes of the Registrar-Administrator of the Commission in respect to the proceedings at Hearings held by the Commission.





## **CHAPTER IV**

### **Review and Consideration of the Evidence**

#### **General Comments on Air Transportation Industry**

As a result of the detailed consideration of the evidence put before it at the Public Hearings, in its private research, and in its consultations with many persons expert in the air transportation industry, not only in the United States but also in Europe, the Commission is of the view that there are a number of matters which should be identified.

First of all, it should be noted that the air transportation industry in Canada and throughout the world has had dynamic growth since the early 1950's, particularly during the last half of that period when "jets" first were introduced.

Since the commencement of the "jet age", the composition, importance and problems of the air transportation industry have progressively increased to such a tremendous extent that there has been a veritable revolution. There is hardly an airport, or an airport terminal, that has been built in the last 20 years that has not been saturated within a time span of 5 to 10 years. As a consequence, the planning and development of airports has had to be completely different from that obtained heretofore.

For example, in just a few years since the introduction of the jet, air transportation has established itself in a substantial way as the dominant mode of inter-city passenger travel by common carrier. It has largely displaced all other conventional modes of public transportation such as rail, ship and buses, and in doing so,

has opened up entirely new travel markets unheard of before, as witness the very substantial air charter market.

As part and parcel of this tremendous growth in the air transportation industry, the travel habits of Canadians, and other people throughout the world, have been completely changed. There is a part of the population in Canada and throughout the world which is using air transportation where heretofore its travel habits confined it to its own communities, or to an area very close to its own home communities.

These travel habits are irreversible, so that in the future, the air transportation industry will have to be expanded to meet the demand caused by such travel habits. Those areas which do not keep pace with demand will be bypassed in favour of the areas that provide suitable air facilities.

Entirely new means and methods of operating businesses and industry have arisen, both of which have a substantial dependence upon air cargo and passenger transportation. Industry and commerce will be looking to locate in areas where there are efficient airports with good ground access.

Unfortunately, this growth in the air transportation industry has caused problems which are world-wide. First of all, there is an urgent need to enlarge and improve existing airport facilities, and to construct new airports in order to meet these demands in a reasonably adequate and efficient manner. To do this has cost substantial sums of money for airport facilities to meet the needs up to the present time, and many more dollars will have to be invested if the demand is to be met for air cargo and passenger service in future. Such investment will have to be made in time, while there is space available in the correct location for such airport facilities.

The growth in air transportation industry has caused many ecological, social and economic problems.

The Commission recognizes that local environmental effects of airport development must be minimized, but at the same time, a balance must be struck between those environmental effects and the need to provide for, and sustain a viable national air transportation system. The evidence at the Hearings held by the Commission proves that this balance can be obtained.

This is especially true with a country like Canada, which encompasses vast distances, and in which a rapid, efficient transportation system is a basic necessity. A nation the size of Canada must be held together by a carefully planned national passenger and cargo air transportation system, which, in the judgment of this Commission, is mandatory.

In certain countries such as the United States, the national ability to provide adequate airport capacity has been practically halted, caused in large part by special interest groups and certain private citizens who object to every major project, especially those related to airports.

Another reason for the loss of the ability to increase airport capacity is the scarcity of land and the costs of new airports.

The Commission has heard evidence which indicates that some persons have the view that there should exist a policy of economic and ecological equilibrium. In the Old evidence, it was indicated that there should be differing priorities. For example, it was suggested that housing should be given a greater priority than airports. It was also suggested that the Government should establish a policy to discourage air travel. It was further suggested that the Government should have a policy to encourage people not to move from place to place.

The Commission considers that recommendations of this nature should be considered, so that the public in general may reach a consensus as to which goals are desirable. When a consensus has been reached, then perhaps the Canadian Government should establish this consensus as national goals. Perhaps going further, national goals should be advanced as international or global goals or policies.

However, the Commission wishes to point out that there are no such national, North American, or global goals, or policies, in existence prescribing that ecological and economic equilibrium is desirable; in fact, there is not even a semblance of a consensus that such is the wish of the people. For example, even the Executive Committee of the Club of Rome in its commentary on the Massachusetts Institute of Technology (M.I.T.) Treatise, *The Limits to Growth*, a monogram which The Club has used for the purpose of stimulating discussion, has this to say:

“The concept of a society in a steady state of economic and ecological equilibrium may appear easy to grasp, although the reality is so distant from our experience as to require a Copernican revolution of the mind. Translating the idea into deed, though, is a task filled with overwhelming difficulties and complexities. We can talk seriously about where to start only when the message of the Limits to Growth, and its sense of extreme urgency, are accepted by a large body of scientific, political, and popular opinion in many countries. The transition in any case is likely to be painful, and it will make extreme demands on human ingenuity and determination. As we have mentioned, only the conviction that there is no other avenue to survival can liberate the moral, intellectual, and creative forces required to initiate this unprecedented human undertaking.”

The Commission was not mandated to express any views as to the desirability or otherwise of attempting to obtain a national consensus, prescribing a policy of economic and ecological equilibrium. Because of this, and because at the present time it would appear to be the national policy of Canada that ever increasing gross national product is desirable, the Commission must proceed on the basis that the growth in the air cargo and travel transportation industry will continue relatively unfettered.

Having made the above observations, the Commission in this Chapter proceeds both to discuss and consider, in detail, the evidence, so as to enable it to answer the questions which it was requested to respond to by the *Order in Council* and to set out the background for its answers. The Commission now does so by dealing with the evidence under various topics or headings.

In doing so, it has been possible for the Commission to come to a decision whether in its view air transportation in Canada will continue to grow, and continue to be the dominant mode of inter-city travel by common carrier in the foreseeable future. The Commission has also been able to reach a view as to whether or not, as the Canadian population and overall economy grows, an ever larger percentage of the total Canadian population will travel by air, and whether or not, in total movements, the demand for air transportation of persons and cargo, in Canada, will continue to increase.

This is very important because if the air transportation industry in Canada continues to grow, then it is important that airport facilities for the central Ontario market be constructed in time to

adequately accommodate the levels of traffic for the demand which such air service will require. At the same time, it should be borne in mind that refusal, neglect, or delay, in providing such facilities will not stop the growth in air traffic, but instead will only result in increasingly and absolutely untenable levels of congestion and delay, and a diminution of service.

With that in mind, the Commission now proposes to discuss and consider all the evidence and information received under the following headings, namely:

1. Forecasts
2. Noise Disturbance from Aircraft Operations
  - (a) General Problems and Principles of CNR, NEF and ASDS,
  - (b) Malton
  - (c) Pickering
  - (d) The Control and Reduction of Aircraft Noise
3. Terminal and related ground facilities at Malton
4. Ground Access to Airports
  - (i) Malton
  - (ii) Pickering
5. Runway Capacity
6. Airspace
7. Environmental Aspects
8. Economic Impact
9. Energy Crisis
10. Air Cargo
11. New Technology
12. Travel Habits
13. General Aviation
14. STOL
15. Two-Airport System
16. The Role of the Proposed Pickering, if built
17. Off-site Terminals
18. Airport Zoning and Compensation
19. An Airport and Its Planning
20. Airport Authority





## 1. Forecasts

The purpose of the Ministry of Transport, Canada, in producing a forecast was, in the first instance, to settle in its own mind what demands might be made by passengers and cargo for air accommodation in the future. In the second instance, the forecast was prepared by the Ministry of Transport, Canada, to determine the extent of any physical construction which it must undertake to accommodate the demand of the public for air travel and air cargo in the future. The third purpose of the forecast was to determine at what stages in the future the demand forecast would be realized, so that any physical accommodation which must be built could be constructed in phases in time to meet the demand.

The Commission recognizes the problems inherent in any kind of forecast. Forecasting is not a science and has been described to the Commission as an art. Forecasts combine not only what evidence there is of history with whatever judgment the forecaster applies, but they also involve the input of a tremendous number of factors which may or may not have weighted upon the final results.

The Commission recognizes that any forecast is subjective and that it constitutes nothing more than a conclusion based upon the best possible evidence available of what is most likely to take place in the future.

Having said this as a general background, one can say that there are in vogue many different methodologies used in arriving at forecasts, none of which seem to have a significantly higher degree of preference than another. It is for this reason that the Commission has approached the matter of forecasts in a rather pragmatic way by making the following assumptions:

1. That the forecast is going to be wrong in any event.

2. That the farther the forecast is projected into the future, the greater the error.

3. Since there will be a continued and increasing demand for travel in the future, some increased level of demand has to be the cornerstone of any kind of a future programme.

The Commission, therefore, comes to the conclusion that while the demand which is forecasted, is staggering by any dimension, nevertheless, by using some rather broad yardsticks, it has satisfied itself that the forecast is within reasonable probability.

Historically air travel has responded to the Gross National Product. If one is to test the validity of the forecast made by the Government of Canada simply by comparing it with the Gross National Product as forecasted by various organizations such as the Economic Council of Canada and others, the forecast of the Ministry of Transport, Canada, actually shows a narrowing of the growth rate of air travel to more closely parallel the growth of the Gross National Product. This, while not a definitive test, is nevertheless a salutary consideration to the Commission.

A second test is to look historically at the actual growth of air travel in the past which has been at a rate of more than 12%.

The Commission has concluded that if a forecast was based upon historic growth, that a forecast figure would have resulted in a demand figure higher than that projected by the Ministry of Transport, Canada.

A third test is to look at the forecast itself and to determine whether it seems to have been based upon assumptions which are warranted, and whether the forecast is based upon a methodology which can be reasonably defended.

The Commission has come to the conclusion that while the methodology has, like all methodology, weaknesses due to its subjective nature, nevertheless, the forecast is an acceptable, probable forecast.

The Commission concludes, for example, that even if the forecast was to have erred on the high side by 50 per cent, it would still produce a demand for accommodation, 50 per cent in excess of the capacity of Malton.

It is worth noting that the evidence disclosed that estimates of demand made in the past for American Airports have all, very

substantially, underestimated the demand. This, the Commission believes, is of vital significance.

The forecasts put in evidence attempt to deal with movements of three different subjects:

1. People
2. Cargo
3. Aircraft

Quite apart from people, cargo and aircraft, there is another major activity, in the air and at airports, which must be considered, namely, general aviation.

The figures to which the Commission now refers, (probable forecasts made by the Ministry of Transport, Canada, as of 1972), are figures which will obtain in any event, whether there is Malton or Pickering or both. In short, the figures to which we now refer are the figures for which the Commission believes there will be a demand:

	<u>1980</u>	<u>1990</u>	<u>2000</u>
Passengers (enplaning and deplaning which includes passengers who originate or terminate their trip at Malton and passengers making a connecting flight at Malton)	15.9 Million	32.5 Million	61.9 Million
Cargo per year (Pounds)	925 Million	3 Billion	8 Billion
Air Carrier Movements (Commercial) per year	166,730	228,300	371,200
General Aviation Aircraft Movements per year	1.6 Million	2.3 Million	3.6 Million

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	<u>1980</u>	<u>1990</u>	<u>2000</u>
General Aviation	21,000	48,000	63,000
Aircraft Movements which must be handled at a major carrier airport			

In April, 1974, the Ministry of Transport, Canada, completed a revised passenger forecast of maximum, probable and minimum number of passengers to the year 2000.

The maximum forecast was as follows:

<u>1980</u>	<u>1990</u>	<u>2000</u>
16 Million	35 Million	68 Million

The evidence adduced before the Commission as to forecast dealt mainly with probable forecast.

The revised forecast changed a portion of the previous probable enplaned and deplaned passengers. These changes are as follows:

	<u>1980</u>	<u>1990</u>	<u>2000</u>
1972 Estimate of originating and terminating passengers	12.3 Million	25.4 Million	48.8 Million
1974 Estimate of originating and terminating passengers	11.6 Million approx.	23 Million approx.	41 Million
Reduction	.7	2.4	7.8
Percentage Reduction	5.8%	9.5%	16%

Applying the reductions of April, 1974, to the earlier probable forecast, the Ministry of Transport, Canada, arrived at a revised forecast as follows:



	<u>1980</u>	<u>1990</u>	<u>2000</u>
Enplaned and deplaned	15 Million	29.4 Million	52 Million

It is expected, following a present review by the Ministry of Transport, Canada, that the percentage reduction in the connecting passengers will be slightly greater than the reduction in originating/terminating numbers of passengers, therefore the number of enplaned/deplaned passengers in 1980 may be slightly lower than 15 million (and the same adjustments will apply to the years 1990 and 2000). It is expected that the changes will however, be marginal.

In reaching the above conclusions, the question which the Commission obviously faced in its own mind, was the reality of these forecasts.

In this connection, it is useful perhaps to compare the development of Malton in recent years, in terms of passenger traffic with the projected figures of the Ministry of Transport, Canada. For example, in 1971 the passenger traffic was approximately 6.7 million. In 1972 it rose to something in the order of 7.67 million (an increase of 14%) and in 1973 there was a 20 per cent increase rising to 9.24 million passengers. Clearly, from those figures alone, one can see that the traffic at Malton, from a passenger point of view, is increasing at a recent 3 year average rate of approximately 13% a year, and on that basis will alone double itself by 1979 to 18.5 million, a figure well in excess, in our opinion, of the capacity of Malton in terms of passengers alone.

The Commission is of the view that the forecast figure of 15 million passengers by 1980, unless there are some extremely unusual developments, will likely be exceeded. It may well be that there will be a reduction in the rate of growth during the late '80's or the early '90's but that the ultimate figures forecasted for 1990 and 2000 will likely be reached and probably will be exceeded.

It was strongly argued by one witness that the assumptions as to the propensity of international travel by the children of foreign-born parents was enough to invalidate the forecast. The Commission rejects this argument. The Commission notes that the argument rests heavily upon the necessity to make different assumptions, which have even less validity than those sought to be set aside.

It was also argued that the estimate of the price level of aviation fuel as used by the Ministry for certain years in the future having been already reached in 1974, the forecast was on that account alone cast in serious doubt. Based upon the total evidence, as to supply and likely price of aviation fuel in the decade of 1980 and 1990, the Commission does not feel justified either in setting aside the forecast or making alternate assumptions of its own on that account.

Opinions were submitted dealing with leisure time, advances in technology and the like. The whole of the evidence, when read together objectively, satisfies the Commission that the forecast of the Ministry for the years 1980, 1990 and 2000 is reasonable.

The forecast of the Ministry of Transport, Canada, was compared to a forecast made by Air Canada utilizing slightly different methodology. Air Canada questioned its own forecasts because of the energy crisis of the winter of 1973-74, and the facts causing cost escalation, but could draw no conclusion as to what would be the probable long range outcome.

The Commission is of the view that it is worthwhile pointing out that it believes that no valid long-term forecast can be adjusted either on a monthly or a yearly basis to respond to some particular economic, social or political event such as an energy crisis or economic recession, which may take place in any given year. Historically, performance or actual experience has moved along rather smooth upward paths.

The Ministry of Transport, Canada, has included in its forecast considerations such as the energy crisis, the change in energy costs, the adjustment in preferences of the travelling public. Nevertheless, it is difficult to quantify these conditions. The Commission is of the view that there will be substantial growth and that the

forecasts are not only realizable but, in the absence of any persuasive evidence to the contrary, of which there was none, are acceptable probable forecasts of projections of demand.

In reaching this conclusion, it is conceded by knowledgeable persons that forecasts made for the purpose of the construction and operation of airports must reach many years into the future, and as such are quite different to forecasts made by an air carrier to plan its future requirements for planes, equipment and facilities which need not encompass a forecast of more than three to five years.

Some comment is now made upon certain of the alleged weaknesses in the methodology of the Ministry of Transport, Canada.

First it can be said, with some justification, that the Government has presented or provided in recent years, a number of forecasts, all of which have differed one from the other. On the other hand, when one realistically looks at the problems involved in forecasting, and in dealing with the unknown, and particularly for some years in advance, one can hardly wonder that one forecast does differ from another. The Commission places no importance upon these differences.

It has been said, for example, that the central Ontario market has been over-estimated by including therein passenger, cargo and aircraft movements which emanate from other than the central Ontario market. While the Commission accepts this as the subject of criticism, it is nevertheless satisfied that any market forecast will contain a certain amount of duplication.

A second criticism made of the forecasting model arises in relation to the limited sampling that the Ministry of Transport, Canada, carried out in relation to the travelling public. The sampling took place during a two-week period at Malton during the months of August and September, 1973. There was some criticism that the two-week period was not sufficient and that the survey should have been conducted during other periods over the years. There was also the criticism that the survey was not completely at random and, therefore, produced certain inherent inaccuracies.

The Commission is of the opinion that there is merit in the observation that the sampling was not at random, but was based on a so-called stratified sample relating to certain income groups.

However, the Commission is not of the view that this invalidates the conclusions of the forecast.

Criticism was levelled at the model on the ground that it does not contain a provision for a sampling error. Again the Commission concludes that, although this might have been the appropriate step to have taken, it is not likely that the failure to allow for a sampling error constitutes a material weakness in terms of the overall forecast.

An additional weakness alleged was that certain assumptions were made as to income-related travel. Certain assumptions were made that certain business travel is income-related when, in fact, there does not appear to be sufficient evidence to support such a conclusion. On the other hand, the amount of travel that appears to be strictly business oriented, while of importance, again is not in the Commission's opinion, of sufficiently broad significance to throw the forecast into serious doubt.

The model itself is basically a reflection of the propensity of persons to travel, and these propensities in turn are affected by what are called modifying factors. In other words, the propensity to travel is affected by the change in the level of service; or the level of fares, etc. The propensity to travel was in certain categories adjusted by the Ministry of Transport, Canada, in preparing its forecast by way of what it calls a calibration factor. It was argued that the calibration factor was nothing more than an arbitrary assumption arrived at in order to obtain a fit of certain projections based upon the adjusted facts of 1961 as compared to the projected facts of 1971.

The Commission is of the view that the calibration factor in some of the categories may be higher than is justified, but this is a very difficult fact to establish and it seems to the Commission that it is easier to take the overall projection of the forecast and discount it somewhat in total, than it is to attempt to adjust individual criticisms of the model itself, and then accumulate the adjustments individually into an amalgam.

Certain observations were drawn to the attention of the Commission related to fare elasticity as the most important modifying factor and the use by the Ministry of Transport, Canada, of current dollars. The purpose of looking at price elasticity is to determine the effect upon demand for air travel in the event of the

change in the price of fares. The price in fares can come about through a number of different economic facts. Unfortunately, in estimating price elasticity it was necessary, according to the Ministry of Transport, Canada, to omit charters, simply because the charter experience had not been as extensive as had been the experience with other forms of travel. On the other hand, charters have a very material influence upon international travel, being the sector in which the greatest expansion is expected to take place in the future. However, here again, although this appears to be a weakness in the methodology, it does not appear to the Commission that the Ministry of Transport, Canada, has proceeded upon an assumption which it cannot justify.

There was also expressed some concern that one cannot really test price elasticity in terms of constant dollars and that a current dollar standard should have been used; the argument being that constant dollars require a price-frozen relationship between different commodities, whereas elasticity is an attempt to determine what will happen to demand in the event that the relationship of price changes.

Some concern was also expressed in terms of the reliance of the Ministry of Transport, Canada, upon United States passenger carrier experience in terms of fare elasticity. Here again it may be said that there appears to be certain merit in such criticism, but the results that were obtained, while perhaps subject to certain weaknesses, nevertheless are acceptable to the Commission. The fact is that there did not seem to be available any evidence relative to elasticity in the Canadian market and, therefore, certain necessary assumptions were made by the Ministry of Transport, Canada, based upon United States experience.

The forecast indicates that the propensity to travel rises from 0.314 in 1971 to 1.06 in 1991 in terms of round trips per person. These figures are consistent with the forecasts and the model which produced the forecast, and do not seem to be at major variance from other tests to which the Ministry of Transport, Canada, has put the model, nor are the figures at major variance with the anticipated growth of the Gross National Product, nor the extension of historic growth in recent years, nor United States forecasts such as FAA and Civil Aeronautics Board.



The growth forecast works out at between 7 and 8 per cent compounded annually which the witness Mr. T. M. Sullivan (whose qualifications are discussed elsewhere) believes to be on the low side. Mr. T. M. Sullivan preferred a growth figure for Toronto in the order of 11%.

The forecasts put in evidence by the Ministry of Transport, Canada, were acknowledged to be not the maximum forecasts for the respective years, but were the rates of growth most likely to be achieved by the said years. The Commission in adopting these forecasts points out that they do not represent the maximum forecasts; but represent, in its view, the probable rates of growth for 1980 and beyond.

For these reasons, as stated, the Commission has concluded that the said forecasts of the Ministry of Transport are within reasonable probability.

While the Commission accepts the probable forecast of the Ministry of Transport, Canada, made in April, 1974, the Commission is of the opinion that the probable forecasts made in 1972 should be used for planning purposes. By adopting this course, the airport can be built with expansible facilities which will provide adequate capacity as required. The Commission makes this suggestion due to the fact, as already mentioned, that historically forecasts of passenger growth have been low.

## **2. Noise Disturbance from Aircraft Operations**

### **ESTIMATING THE NUMBER OF PEOPLE AFFECTED BY DISTURBANCE FROM FLIGHT OPERATIONS**

As aircraft noise became a serious community problem, a number of schemes were developed throughout the world to forecast the impact of aircraft noise around airports and to establish standards of acceptance levels of this noise. Some of these schemes are Composite Noise Rating system (CNR), Noise Exposure Forecast system (NEF), Community Noise Equivalent Level (CNEL), the Aircraft Sound Description System (ASDS), all developed in the United States, the British Noise Number Index (NNI), the French Isopsophic Index, the Dutch Total Noise Load, the German Mean Annoyance Level and the South African Noisiness Index.

The Commission heard and considered evidence in respect to three of these systems, Composite Noise Rating system, the Noise Exposure Forecast system and the Aircraft Sound Description System.

#### **THE COMPOSITE NOISE RATING SYSTEM**

Until 1972, the Ministry of Transport used the Composite Noise Rating system (CNR) as the means of predicting the number of people affected by disturbance from aircraft operations and anticipated community response to aircraft noise.

The concept of a scale response for predicting the reaction of a community to a particular noise in relation to other noise in the community was first advanced in 1952. This concept was known as the Composite Noise Rating system. During the period 1952 to 1964, the original concept underwent a series of modifications to adapt it as a means for exclusively predicting community reaction to aircraft noise. The system as finally developed was a logarithmical formula comprising various components based upon the noise characteristics emitted by the engine on take-off and approach for each class of jet aircraft operating from an airport, the frequency of aircraft movements, the particular runway used and whether the aircraft movements occurred during the daytime, 0700 hours to 2200 hours, or at nighttime, 2200 hours to 0700 hours. The original case histories obtained at the time the system was conceived were used, with some adjustment based upon judgments as to their validity in the translation of the formula to response. The formula did not include any factor in respect to noise emitted from ground run-up operations, or the general level of background or ambient noise of the community, or in respect to previous exposure of a community to aircraft noise. A composite set of contours was developed, based upon the formula, which could be overlayed on a map of the community surrounding an airport. Numerical values were assigned to a contour, or zone, based upon a community response scale which had evolved during the development of the concept. There were three zones established with a Composite Noise Rating assigned to each zone. Zone I had a CNR rating of less than 100. No complaints were to be expected from residents in this zone, however, there could be occasional interference with certain activities of the people who resided in the zone. Zone II had a CNR rating from 100 to 115. Residents in this zone might be expected to complain and complain perhaps vigorously. Concerted group action might also be expected. Zone III had a CNR rating greater than 115. Residents in this zone could be expected to complain repeatedly and vigorously. Concerted group action by the residents could be expected.

There were various technical weakness in the CNR system as finally developed. The step approximations in totalling the noise contributions by different types of aircraft or different types of

operations could lead to significant underestimation or overestimation in the affects of the CNR values as a result of changes in operations or changes in types of aircraft. The system did not take into account the maximum tone emitted by a jet aircraft engine nor the duration or period that the maximum noise was heard.

### **THE NOISE EXPOSURE FORECAST SYSTEM**

The Federal Aviation Administration of the United States Government financed studies to develop a new system which would incorporate the refinements recognized as being needed to be made to the CNR system. The new system would be limited only to civil jet aircraft. The development of computer technology made it possible for a new system to be developed in 1969 known as the Noise Exposure Forecast (NEF) system.

The area around an airport affected by noise from aircraft operations is expressed in terms of the Noise Exposure Forecast system. The NEF value at a given point near an airport is calculated by totalling the noise energy received at that point from all the aircraft operating into and out of the airport during a day. In making the calculations, the number and type of aircraft, the noise characteristics of each aircraft, the flight paths which they follow, the manner in which they are operated, (weight, power thrust during take-off and landing, degree of glide slope on approach to the airport) are all taken into consideration. In making the calculations, consideration is given to the maximum tone emitted by the particular type of each jet aircraft and the period that this noise is heard. From the calculations, a set of contours is produced which then can be overlayed on a map of the community surrounding an airport. A numerical unit is assigned to each contour and community response can thereby be predicted or estimated. The unit produced by the NEF system has numerical values substantially different from the CNR values in order to avoid confusion between the two systems. An equivalent approximation between indices used in each system is as follows:

25 – 30 NEF	90 – 100 CNR
30 – 35 NEF	100 – 108 CNR
35 – 40 NEF	108 – 115 CNR
40 – 45 NEF	115 – 123 CNR

The relationship between an NEF contour and anticipated community response is as follows:

<u>NEF Unit</u>	<u>Anticipated Response</u>
Less than 30	Essentially no complaints are expected, however there may be interference with community activities.
30 – 40	Individuals may complain and there may be possible group action.
Greater than 40	Repeated vigorous individual complaints and group action can be expected.

It should be noted that the Noise Exposure Forecast system is a refinement of the CNR system with the basic difference being that in the NEF system calculations are included for maximum tone and the duration the maximum tone is heard. The same division of a day into two periods is used with a weighting given to nighttime operations over daytime operations. Ambient or background noise is not taken into consideration. The noise emitted from ground run-up operations is not taken into consideration. No new information on community response was applied from that used in the CNR system.

Characteristics of various aircraft are extrapolated to include longer distances using the best information regarding atmospheric absorption and scattering. The effect of noise level at each location around an airport is interpolated from the various curves, based on the geometric closest point of approach of the flight path for each aircraft with various corrections then being made. The noise levels calculated in this manner have a potential margin of uncertainty of several decibels in magnitude. The resulting NEF contour could be 50% to 100% of the proper value. This potential variation in proper value is most significant if a contour is being used to estimate absolute noise exposure conditions.



The noise generated by an aircraft can vary from 5 decibels to 20 decibels from the assumed statistical data as to its performance depending upon the manner in which the aircraft is flown. Load, temperature, wind, are important factors affecting the manner in which an aircraft is flown which in turn can result in a significant difference in the noise under the flight path where an airplane is taking off.

Greater uncertainty exists as a NEF contour is projected into the future as it involves a subjective estimate as to the number and class of aircraft that will be flying, the load factor of the aircraft related to maximum capacity, the actual flight paths that will be used, the number of aircraft movements, and runway utilization. It would be realistic to accept that such projections will have a plus or minus factor of five units. This could result in as much as 100% difference in the total area comprised in a NEF contour.

It is difficult to apply the NEF system in a rural area where the background or ambient noise level is low. Under such circumstances, the noise emitted by aircraft would be noticed as the major noise intrusion to people living in such community.

It is dangerous to regard the fine line of a NEF contour as the absolute limit of the noise represented by that contour. The contour line is comparable to a mountain with a high peak which spreads out as one descends the mountain. The line of a contour would be more realistically drawn by a paintbrush or by a paint spray gun.

People residing in an area which is highly sensitive to aircraft noise do not appreciate the benefit of soundproofing due to the fact that they experience a greater impact from noise when they go from their soundproof home into their gardens. A NEF contour cannot be used to generate a type of sound insulation parameter as far as acoustic absorption is concerned.

Wind is an important factor in the propagation of noise and can have a completely different effect insofar as disturbance from noise is concerned from that assumed by the NEF system.

The appropriateness of the division of a day into two time periods is questionable in the summertime where windows are open and people engage in outdoor activities in their gardens and patios. While a computer may indicate that there is no difference, it is a reasonable inference, from a practical viewpoint, to assume that there will be interference with such activities by aircraft

operations. Accordingly, the division of a day into three time periods in the summertime period would probably be a more realistic means of determining the number of people affected by disturbance from aircraft operations and community response than using the same time divisions of a day for both summer and winter. The Community Noise Equivalent Level, adopted by the State of California, does divide a day into three time periods; day — 0700 hours to 1900 hours, evening — 1900 hours to 2200 hours and night — 2200 hours to 0700 hours. The adoption of a three time period day would, of course, result in the enlargement of the NEF contours and the number of people affected.

### **THE AIRCRAFT SOUND DESCRIPTION SYSTEM**

Due to the previously noted weaknesses of the NEF system, and the difficulty of explaining this complex system to non-technical people, the Federal Aviation Administration has adopted, as of 1 July, 1974, a new method for describing community noise exposure caused by aircraft operations, which is known as the Aircraft Sound Description System (ASDS).

The ASDS concept is designed to measure the total time during a 24 hour period that noise from aircraft operations around airports exceed a fixed level, generally 85 dB(A). Noise levels are represented in A-weighted decibel units which are used for the measuring of many transportation and non-transportation noise sources. The system contains no correction for the maximum tone and duration that the noise is heard. The system contains no subjective prejudgments in the calculating procedures, such as a night penalty, as these factors are peculiar to each individual community. The basic data required for the use of the system are; the aircraft type, aircraft gross weight, runway utilization rates, flight path utilization rates and time of day during which these specific operations take place.

The ASDS concept was designed primarily to assist in determining whether proposed changes around airports will improve or deteriorate exposure conditions by permitting a before and after comparison of noise exposure conditions in purely physical terms.

It is recognized that the use of the ASDS, or A-weighted decibels, is not appropriate for type certification noise requirements for new or existing turbo jet aircraft. The FAA intends to continue

the use of EPNL for turbo jet aircraft type certification requirements. The system is not useful for land use planning or for assessing the actual noise impact on the airport's neighbours. The FAA still prefers the use of the NEF for these purposes.

### **COMMUNITY RESPONSE TO AIRCRAFT NOISE**

There was evidence adduced that community response to aircraft noise has two components, the actual physical noise heard by a person and the attitudinal response of the person to that noise. A person's attitudinal response to aircraft noise can be affected by his life style, that is, the total noise environment to which he has been subjected in his hourly, daily, weekly, monthly and yearly activities. His attitudinal response will also be affected by the time of day, his previous exposure to aircraft noise, the ambient or background noise of the community in which he resides, and whether his occupation is related to air industry employment. His attitudinal response will also be affected by whether those in authority are doing anything to alleviate his situation, a promise of action backed up by actual action can affect his response by as much as 10 decibels. Fear of crashes has developed among those who are affected by noise from approaching aircraft. Evidence was also adduced that two studies of attitudinal response were made of two airport communities within a short interval of time. It was found in the second study that at each airport the attitude of the population had hardened against the noise from airport operations as compared to their attitude in the earlier study.

### **APPLICATION OF THE CNR SYSTEM AT MALTON**

Following the decision of the Government of Canada, December, 1968, that Malton Airport would only be expanded within the boundaries of the existing airport lands, the Province of Ontario developed a noise sensitivity zone plan based upon the CNR system and developed a Land Use Compatibility Table which established the basis for land use development in each of the zones. It was believed that the Land Use Compatibility Table would ensure that lands in each of the zones would be developed for uses compatible with the expected maximum level of noise expected in a

zone to 1975–76. Six zones were established. It was recommended that all new residential development be avoided in Zones IV to VI inclusive. These zones exceeded 110 CNR. It was recommended that wherever possible alternative land uses should be considered for those zones. However, townhouses, maisonnettes, and apartments were permitted in Zone IV subject to the recommendation that developers should be made aware of the noise problem, and be required to undertake to relay the information to all prospective tenants and purchasers of such residential units. Detached and semi-detached dwelling houses, townhouses, maisonnettes and apartments were permitted in Zone III which had a CNR rating of 105. It was recommended that a similar undertaking be required from the developer as that required from the developers of land in Zone IV. All types of residential development were permitted in Zone II which had a CNR rating of 100. It was recommended that developers be made aware that it was a marginal zone in which noise may start to become a problem and that developers be required to inform prospective tenants and purchasers of single family dwellings and maisonnettes of this fact. However, no undertaking was required from the developer to do this. All types of residential units were permitted in Zone I which had a CNR rating of 95. No recommendation was made that any notice of a noise problem be given to a developer or purchaser or tenant of a residential unit.

Evidence was adduced before the Commission by the City of Brampton that the residential population in some parts of the City in Provincial Zones II and III has increased during the period 1971 to March, 1974 by as much as 55%. In addition, official plan amendments which would permit residential development in various lands situated in Zones II and III had received Provincial approval as late as November, 1973. As a result of these amendments, residential development in these zones will be permitted which will have an ultimate population in excess of 100% of the present population. The former Township of Chinguacousy, which now forms part of the City of Brampton, did not “place entire faith” in the Provincial Land Compatibility Table as it felt there would be a lessening of aircraft noise as it believed there would be another airport, and it also believed that aircraft engines would be quieter in the future.



Evidence was adduced before the Commission by the City of Mississauga, which comprises the former Town of Mississauga. In granting approval to residential subdivision development of land situated in Provincial Zone III, it imposed the condition that a subdivider obtain a detailed analysis of noise reduction requirements caused by aircraft noise related to the use of Malton Airport. In respect to approval of residential development of land situated in Provincial Zone II, the Subdivision Agreement between the Municipality and the subdivider required the subdivider to inform purchasers that the area was in an area of aircraft noise. The Subdivision Agreement, which dealt with other matters in addition to noise, was registered on the title to the lands.

Evidence was adduced before the Commission as to the manner in which the Borough of Etobicoke applied the Provincial Land Compatibility Table to residential development. In the case of lands situate in a Provincial Noise Zone which was already zoned for residential purposes, but not yet developed, no warning was required to be given to prospective purchasers or tenants that the land was within a zone which may be affected by aircraft noise. In respect to lands which were rezoned to residential development, after the coming into force of the Provincial Land Compatibility Table, it merely incorporated into the provisions of its Official Plan the provisions of the Land Use Compatibility Table. There was no evidence that it required any undertaking from the developer to warn prospective purchasers or tenants that they could encounter a noise problem. There was also evidence by the Borough of Etobicoke that as late as the fall of 1973, proposed residential development situate in a highly sensitive noise zone, which the Borough wanted to be developed for residential purposes, was only stopped as a result of the efforts of residents adjoining the area who wanted to ensure that purchasers and tenants of the proposed development would not be subjected to the same noise to which they were subjected.



## **ESTIMATED NOISE DISTURBANCE AT MALTON AND PICKERING**

In order to forecast the number of people affected by disturbance from flight operations, there must be first a forecast as to the volume of passengers, air cargo and aircraft movements for each period to be considered. In its consideration of the forecast of the number of people affected by disturbance from flight operations for the period up to 1980, 1990 and 2000, the Commission considered the evidence on the assumption that the forecast of the Ministry of Transport, Canada, as to the volume of passengers, air cargo and aircraft movements in the central Ontario market for each of the said time periods was correct. There was evidence that the Ministry had prepared forecasts in respect to these matters in 1971 which were revised in 1972. The latter forecast had been used for planning purposes since that time. There was also evidence that the Ministry was preparing a further forecast which would be submitted at a later Hearing. The validity of the forecasts are discussed under the heading "Forecasts".

The annual probable forecasts (made as of 1972) were as follows:

	<u>1980</u>	<u>1990</u>	<u>2000</u>
Passengers (enplaned and deplaned which includes passengers who originate or terminate their trip at Malton and passengers making a connecting flight at Malton)	16 Million	32 Million	62 Million
Cargo	925 Thousand lbs.	3 Billion lbs.	8 Billion lbs.

*Noise Disturbance from Aircraft Operations*

	<u>1980</u>	<u>1990</u>	<u>2000</u>
Air Carrier Movements (Commercial)	166,730	228,300	367,200
General Aviation Aircraft Movements	1.6 Million	2.3 Million	3.6 Million
General Aviation Aircraft Movements which must be handled at major carrier airport	21,000	48,000	63,000

In 1972, the Ministry of Transport, Canada, found that the estimated number of people affected by noise from aircraft operations exceeded by 7,000 the maximum number of people expected to be affected by aircraft noise in 1976 under the CNR system. The Noise Exposure Forecast system was then adopted as a means of estimating the number of people that would be affected by noise from aircraft operations.

The data used in the computer programme employed by the Ministry to produce NEF contours was obtained from general statistical information and not from actual measurements. Statistical information was obtained as to the noise characteristics of various classes of aircraft on approach and take-off, and as to the expected weight of various aircraft making flights of various distances. The programme took into account the direction of existing runways and proposed runways. The contours were prepared without taking into consideration the curfew presently in effect at Malton. The contours were prepared on the basis of a straight in approach for landing and a straight out departure for take-off. A 3 degree glide slope was assumed for each runway while in fact there is no flight procedure today which requires a 3 degree glide slope on any runway at Malton. The data used in respect to runway utilization took into consideration the preferential runway system that has been recently employed at Malton as a noise abatement procedure, the maximum utilization of each runway having regard to the separation required by wake turbulence and

limitations imposed on utilization by wind speed and direction and weather conditions. Assumptions were made as to the mix of the type of aircraft which would be using the airport in 1980 and 1985. In determining the population that would be affected, the 1971 census information was used and up-dated to 1973 by means of aerial photographs. No attempt was made to predict population growth in the communities surrounding the airport beyond 1973 as it was felt that there would be a danger of creating too hypothetical a situation. The same data as was used for preparation of the contours at Malton was used for preparation of contours surrounding the proposed Pickering airport with the exception of runway utilization and population counts.

After the contours were prepared they were overlayed on a base map of the Malton airport site and the Pickering airport site. The population within each contour was then totalled in order to determine the number of people affected by aircraft operations. The resulting figure is estimated to have an accuracy of approximately plus or minus 5%.

The NEF contour maps introduced as exhibits by the Ministry had three specific contours to indicate the anticipated degree of noise annoyance. This was done in order to relate the contours to the recently adopted policy of Central Mortgage and Housing Corporation in respect to making financing available under the *National Housing Act* for residential development adjacent to an airport. The policy of Central Mortgage and Housing Corporation is as follows:

35 NEF and over — no financing will be provided.

30 — 35 NEF — financing will be denied unless adequate insulation is provided.

25 — 30 NEF — in the upper limit of this zone (in excess of 28 NEF) financing will be denied when the proposed sound insulation is substantially below that considered to be adequate. Adequate sound insulation is recommended for the balance of the zone.

No attempt was made to forecast the number of people that would be affected by noise from aircraft operations beyond the year 1985 as it was felt that it would be extremely difficult to predict the noise characteristics of aircraft that will be in existence

in ten years time. However, the view was expressed that there would be a reduction in the number of people affected provided that no new runways were constructed.

The NEF noise contour maps introduced by the Ministry were basically of three classes. One class was described as actual Malton comprising years 1971, 1972 and 1973, the word actual was used to denote the actual runway utilization and the expected noise characteristics of the actual aircraft operated. The second class was based on an estimate of the number of people that would be affected at both Malton and Pickering if all traffic were assigned to either airport in the year 1980 and the number of people that would be affected at Malton in 1982 if all traffic were assigned to Malton and an additional runway had then been constructed. The third class represented the expected result to both Malton and Pickering under various assignments or division of aircraft operations at each airport. Some of these contour maps appear as appendices to this report. The total number of people affected by noise residing within the 28 to 30 NEF contour, based upon a population updated to 1973, may be summarized as follows:

	Malton	Pickering
1972	131,000	
1973	90,000	
1980	180,000	5,000
(All traffic assigned to either airport with each airport having 3 runways)		
1982	208,000	
(Malton alone with 4 runways)		
Results with various division of operations between Malton and Pickering, 1980, based upon Malton having 3 runways and Pickering having 2 runways		

	Malton	Pickering
A — All Charter Aircraft (Scheduled and non-scheduled), pure freighters and North Europe traffic (representing 25% of the average daily summer movements) assigned to Pickering.	58,000	3,000
B — Charters (Scheduled and non- scheduled) pure freighters all international traffic (except U.S.A. short-haul traffic) assigned to Pickering.	35,000	3,000

It should be noted that in the case of Malton people are residing and will be residing within areas comprised in a 35 NEF and a 40 NEF contour, which have a greater sensitivity to aircraft noise. It is estimated that no one will be residing beyond a 30 NEF contour at Pickering. It should also be noted that the contours do not project population growth beyond 1973, and there was evidence by the City of Brampton and the City of Mississauga as to substantial proposed residential developments which would be affected by noise from aircraft operations.

### **THE MALTON COMMUNITIES TODAY**

Evidence was adduced that population residing in various parts of the Borough of Etobicoke, the City of Brampton, the City of Mississauga and a small area of the Borough of North York, under or adjacent to the flight paths of runways, is affected by noise from aircraft operations.

Groups have organized in the Borough of Etobicoke, City of Mississauga and in the Borough of North York in areas that were defined under the Provincial Land Compatibility Table as being within a 95, 105 and 110 CNR zone. This is equivalent to 28, 30 and 33 contours on the NEF scale, where no concerted group action is to be expected. The groups represented communities affected by operations from all runways. They were affected by



noise emitted from aircraft on approach to the airport and by noise emitted by aircraft on take-off from the airport depending upon where they resided. There was also evidence of a community being affected by noise emitted from ground run-up operations.

There was evidence that the various groups had met with officials of the Ministry of Transport, Canada, over the period 1968 to the fall of 1973. Various commitments were made by the Ministry which it either did not fulfill or was unable to fulfill by reason of circumstances. In 1968, the Ministry of Transport, Canada, had promised to establish 8 monitoring stations but this has not as yet been done. There was a representation at that time by the Ministry that while runway 05L/23R was being extended, it would only be used in an emergency. However, the growth of aircraft movements has required that the runway be utilized. The utilization of this runway has been increased since 1972, and in 1973 its utilization was greatly increased with the introduction of a preferential runway procedure. The increased utilization of this runway has subjected population, in certain areas, to aircraft noise which had not been previously troubled. Some of the people newly affected by aircraft noise have organized into groups for concerted action. In a meeting among representatives of the various community groups with the regional representative of the Civil Aeronautics in the fall of 1973, they were advised that the Ministry of Transport, Canada, could not maintain its previous commitments in respect to runway 05L/23R and that their situation would become worse as growth in operations increased. They were also advised that while quieter aircraft engines in the future may alleviate the noise problem it will only be for a short period as increased movements will again result in increased noise. They were further advised that the only solution to their problems was a new airport.

None of the groups that gave evidence wished to have Malton Airport closed. However, they did not want their situation made worse, and they wanted some alleviation from the aircraft noise to which they are being subjected.

## **THE PICKERING COMMUNITIES TODAY**

The airport site consists of a portion of land in the Township of Uxbridge, a portion of land in the Town of Markham with the majority of the land being situate in the Town of Pickering.

The land upon which it is proposed to construct the airport could generally be described as a rectangle, with an extension in the centre along the northern perimeter, running in a northerly direction. The bottom limit of the site is basically the east-west extension of King's Highway No. 7.

The airport site comprises approximately 18,000 acres of land. The site is transversed by the C.P.R. rail line which runs from the southwest corner to the northeast corner. It is also transversed by a number of local roads. The land was used primarily for agricultural purposes and contains a number of residences and old buildings which are regarded as being of an architectural historical nature.

A number of runways will be constructed on the site which will generally be oriented in two directions, a northwest-southeast direction and an east-west direction. These two alignments have been selected, so that they would be basically in line with or parallel to the existing runways at Malton. It has been stated that this is important from an airspace management point of view.

There are a number of communities adjacent to the airport site. These communities consist of the Village of Claremont, at the northeast corner, the Town of Stouffville, at the northwest corner, the Town of Markham, at the south-west corner, Brougham at the southeast corner, and the Town of Pickering, directly to the south of Brougham on Brock Road.

The Village of Claremont could be described as a small, picturesque, rural centre, with a population of approximately 500 people.

The Town of Stouffville is a larger community, somewhat more urbanized, and has a population of about 5,000.

The population of the Town of Markham is approximately 12,000 to 15,000 residents.

Brougham has several hundred residents and the Town of Pickering has a population of about 15,000 people.

Immediately to the south of the airport lands, and separated from the airport site by King's Highway No. 7, the Province of

Ontario plans to establish a new community to be known as the North Pickering Community. The site of the new community comprises approximately 25,000 acres of land. It is expected that this community will have a future population of about 200,000 people.

Evidence has been received by the Commission that the plans for the North Pickering Community have not been completed, therefore, the Commission can only deal with the North Pickering Community as a proposed residential development which will, no doubt, contain certain mixed uses of a commercial and industrial nature as well.

The lands of both the proposed airport and the proposed North Pickering Community are embraced in what is known as the design for the Toronto-Centered Region, which is a plan published by the Province of Ontario as a guideline, among other things, to delineate areas of development east of Metropolitan Toronto. Apparently, it was, in part, the intention in creating the Toronto-Centered Region design to encourage development towards the east of Metropolitan Toronto and to attempt to stem the development to the west of Metropolitan Toronto, rather than to leave development to take place, as seems to be traditional in North American megalopolises, on the western fringe of major cities.

The level of the prevailing ambient noise in the communities surrounding the proposed airport site near Pickering, was described to the Commission in two different ways. Two different witnesses, one called on behalf of the Ministry of Transport, Canada, and one called on behalf of the Town of Whitchurch-Stouffville, gave conflicting evidence as to the level of the background noise in these communities.

Each of the witnesses conducted various tests to determine the level of background noise in these communities in order to give testimony before the Commission. It is fair to say that criticism could be levelled in relation to both noise studies, but the Commission prefers the results of the study conducted by the witness on behalf of Whitchurch-Stouffville for a number of reasons. He attempted to determine the true background noise by making his tests away from the main arteries of transportation and the main points of sound concentration; whereas, the witness on behalf of

the Ministry of Transport, Canada, while taking more tests, conducted his tests from telephone poles and other similar receptacles which were aligned, through necessity, along the main arteries or rural roads. It appears to the Commission that if one is attempting to obtain an overall assessment of the level of background noise in these areas, one would not take tests exclusively along main arteries of transportation, lest the tests in effect become nothing more than a highway noise record. While the witness on behalf of the Ministry took 700 noise soundings, the location of the tests taken by the witness on behalf of the Town of Whitchurch-Stouffville, although fewer, and subject to certain criticisms, recommend themselves to the Commission as being more representative of the level of background noise in the airport communities, than the overall tests of the Ministry's witness who found, in effect, as a result of the manner in which he conducted his tests, that the level of background noise was not very much different from the noise levels prevailing in residential districts centred right in the midst of the City of Toronto.

After considering and weighing all the evidence, it appears to the Commission that the noise level prevailing in the communities surrounding the site of the proposed Pickering Airport is of a low denomination and is appropriately described as basically rural.

The Commission wishes to note that one of the major reasons that background, or ambient, noise is so important, is that it is the noise level with which the residents of a particular community have become accustomed or to which they have become immunized. The magnitude of the intrusion of noise from aircraft operations can only be considered in relation to the prevailing level of the background noise of the community. It is only with an increase in noise over the prevailing ambient level that one anticipates an additional or new reaction from the community. Accordingly, the level of ambient noise in the community is of importance to the Commission. The Commission is of the view that the noise level implied by a 28 or 30 NEF contour may be more bothersome to those who live in a community with very low background noise level as opposed to those who live in a much more urbanized community where one would expect a greater ambient noise level from many competing noises and sounds.



It is worthwhile to reiterate at this stage that NEF contours do not include, and are drawn irrespective of, any background noise. The witness called on behalf of the Town of Whitchurch-Stouffville testified that one can anticipate a different reaction from a resident who historically, in relation to his community, has experienced a low level of background noise and then is confronted with a level of noise represented by a 28 or 30 NEF contour. The Commission accepts his evidence.

It might be pointed out that the level of noise represented by a 30 NEF, which has been referred to elsewhere, is often said to be acceptable because it is a level of background noise which generally prevails in a community. It is the view of the Commission, however, that this is not a truism when one suddenly lays down a 30 NEF line in an area, which in all directions for mile upon mile, has been accustomed historically to a very, very low level of background noise.

It is very difficult for the Commission to generalize on the level of noise which could obtain in the future at this airport, if built, for a number of reasons, including:

- (i) the airport may contain anywhere from one to six runways;
- (ii) the mix and type of planes has not yet been determined. As has been pointed out elsewhere, each type of plane has its own noise footprint or characteristic;
- (iii) the type of airport itself has not yet been determined, that is to say, whether it is to serve an international, trans-border, domestic or other role. The role the proposed airport is to fulfill will, of course, determine the number of aircraft that use it, as well as the type of aircraft, and this, of course, has an immense impact upon the noise levels which will be generated by aircraft operations; and,
- (iv) the juxtaposition of the runways to the borders of the airport, as well as to the terminals and the other services feeding the airport have not yet been located in a final form. This, of course, confounds attempts to lay down specific noise



contour lines, all of which are specifically associated with the different designs of runways and the planes that use them.

However, what the Commission has attempted to do is to look at the noise which will obtain, assuming that the proposed airport is developed to its highest intensity, and to comment upon those noise contours, since those are, in the Commission's view, the outside possibilities of noise intrusion into the community.

The Commission does not, in the case of the proposed Pickering Airport, accept that the 28 or 30 NEF line is an acceptable level of toleration in a community accustomed historically to a low level of background noise. There is a great deal of evidence to support the Commission's conclusion.

Additional evidence was submitted which indicated that in order to obtain a favourable night's sleep, the NEF contours should be brought down into the teens. The Commission does not want to take a position on a specific NEF contour, nor does it think it is necessary to make a finding of what is a proper level under all circumstances, or perhaps any circumstances, but it is of the opinion that a 28 or 30 NEF level is not the appropriate level to apply in the case of the proposed Pickering Airport and that it is dangerous to regard such contours as absolutes. There was both oral evidence and documentary exhibits which the Commission has considered in arriving at this general conclusion.

The Commission believes that it should make some observation upon the noise contours insofar as they relate to Claremont, Stouffville, Markham, Brougham and Pickering as well as the North Pickering Community.

An examination of Appendices 12 and 13, which show the outer perimeter of the airport, the aforesaid communities, and the respective noise contours, reveals the relationship of the 28 and 30 NEF contours to those communities, which contours do not represent the situation that will exist at the ultimate development of the airport.

It must be remembered when looking at Appendices 12 and 13 that the contours are drawn on the basis of two runways and not six runways. It will be noted that the 28 NEF contour runs very closely to the Village of Claremont and the Town of Stouffville, but not as close to Stouffville as it does to Claremont. The 28 NEF

contour runs directly over Brougham. These contours are rather broad lines and, as previously mentioned in a different way, cannot be regarded as rigid fences driven into the surface of the ground which will prevent the passage of noise.

In addition, the Commission wishes to urge the Government of Canada to avoid now, once and for all, the social, economic and other problems that have developed around Malton as a result of no one, without fault on the part of anyone, foreseeing the development of the air transportation system to the stage that it has reached today, nor the encroachment that it represented upon the social well-being of the residents in the environs of the airport. It is highly possible, if when laying out Malton there had been the kind of understanding which history has taught, or which history has made available, that Malton even now might have been expanded and a second airport avoided. This is an issue which has been spoken of elsewhere, but having happened once, this Commission cautions that care be exercised to prevent it happening again. The Commission is of the opinion, having heard all the evidence, that the 28 NEF contour comes too close to Claremont and too close to Stouffville and if the Pickering Airport is to be developed that the lands embracing both of these communities should be acquired under conditions and terms upon which the Commission reports separately in this Report under the heading of "Airport Zoning and Compensation".

This leads us then to make some comment upon the subject of the Town of Markham, the proposed North Pickering Community and the Town of Pickering. The Commission does not want to go so far as to say, or to suggest that it is possible to guarantee for that matter, that something will not happen in the future. This is so for a number of reasons, some of which have been discussed elsewhere in this Report. However, the Commission is of the view that some greater concern may need to be had for the Town of Markham than has been attempted so far. A great deal will depend upon the turn out paths of the aircraft, as well as to other aspects upon which the Commission has commented. The Commission does not want to go so far in terms of Markham as it has in respect to Claremont or Stouffville in terms of acquisition of those lands, but it does feel that there may be need for some greater sensitivity as to the intrusion of noise into the Town of Markham than has been represented. In

terms of the North Pickering Community, it is quite apparent that there will be intrusions of varying levels of noise from the aircraft themselves as well as from ancillary services or the associated development of the airport. Special treatment will be required in this regard. It is the Commission's view that the project should include, as a minimum, the expropriation of all land within the 25 NEF zone level, or greater, in addition to that which it has commented upon concerning Claremont and Stouffville.

The Commission is of the opinion that if the persons who own land within the 25 NEF contour must be zoned to protect the ongoing use of their land, or in any event their inhabitants, that it is equitable in this day and age to acquire that land. Upon this, the Commission also comments separately under the heading of "Airport Zoning and Compensation". It may well be that there should be some form of zoning, even under the 25 NEF contour.

Speaking specifically to the North Pickering Community, it is quite apparent that there will be on the northern boundary of that community types of intrusion of varying levels of noise from the aircraft themselves, and from the ancillary services of the associated development of the airport. Special treatment will be required in this regard but there is less concern to the Commission concerning this land because the same has been expropriated by the Province of Ontario, and once owned, it will be in a position to deal with this concern by appropriate measures. The Commission does, however, caution the Province that extreme care must be exercised in planning this community from a noise point of view.

It might be useful before leaving this subject to make some comment about the former Township of Pickering which is on the spine which extends southerly from Brougham, known as the Brock Road.

It is quite clear that the 28 and 30 NEF contours include lands beyond the borders of the airport itself and which will require certain zoning restrictions to protect future buyers of those lands as well as the airport itself. In short, there are going to be noise intrusions into the community in which persons live, if only on a sparsely developed basis, which will require legislative action to limit the kind and intensity of development which might take place within those contours. It is the Commission's view that the airport project should include, as a minimum, the expropriation of all land

within the 25 NEF contour in addition to that which it has commented upon concerning Claremont and Stouffville.

## **OBSERVATIONS AND CONCLUSIONS**

It appeared from the evidence adduced by the Ministry of Transport, Canada, that it was using the NEF system for estimating absolute noise exposure conditions. This has inherent dangers. The use of the NEF system as a tool for land use planning around airports should be recognized as representing the point where land use planning is to begin, rather than the point where it should end, if compatibility is to be obtained between the airport and the communities which surround it.

The approach of the Ministry in obtaining data for the calculation of NEF contours has been basically dependent upon assumed statistics rather than based upon obtaining data from actual operations at Malton. This approach has inherent weaknesses.

Sound proofing is only an effective noise abatement tool in a marginally sensitive zone. A NEF contour is not a proper parameter as far as the requirement of acoustical absorption material is concerned.

For all practical purposes, the response of a listener to the noise represented by a 28 NEF contour cannot be distinguished from the response of the listener to the noise represented by a 30 NEF contour. A minimum reduction of 5 units on the NEF scale is required before any noticeable change can be distinguished in the listener's response to the level of noise.

The Ministry of Transport, Canada, has done little to improve the attitudinal response of the communities around Malton Airport to the exposure from aircraft noise. Surveys should be conducted at Malton to investigate the real attitudinal response of these communities. In this investigation, the surveys should be conducted in a manner to determine whether there is any difference in community response, in the summertime, in respect of a day divided into three time periods as contrasted to a day divided into two time periods.

It must be remembered that the NEF system is based upon a computer logarithmical formula. The essential weakness of this technique, as well as others, was found to be that local social, economic, attitudinal and psychological factors are as important, if not more so, than an abstract value of noise exposure. In addition,



this system, as well as others, provides no means of estimating the degree of acceptance that will be tolerated by changing life styles. Unless there is recognition of this fact, the Commission warns that not only will additional problems be encountered at Malton, there is real danger that the Malton situation will be repeated within 20 years at Pickering, if built.

The Commission cannot accept the proposition that the people who moved into the communities around Malton knew that there was a noise problem and accordingly they should bear the consequences. The manner in which the surrounding municipalities and the Government of Ontario applied the Land Compatibility Use Table and the commitment given by the then Department of Transport, Canada, that runway 05R/23L would be only used in the case of emergencies, do not support the proposition.

The Commission is of the view that the only satisfactory means of warning people that they may be buying land or renting a dwelling unit in an aircraft noise sensitive area is by the registration of notice on the title to the lands comprised in noise sensitive areas, in a document related exclusively to the giving of such notice.

The full benefit to be derived from the introduction of quieter engined aircraft will not be as well appreciated if the aircraft fleet operating from an airport is composed of JT3D or JT8D powered aircraft. The noisier aircraft will stand out and will be the ones that are heard. While the DC-10, the L-1011, and B-747 are regarded as quieter aircraft, as contrasted to the first generation jet aircraft, the noise of these aircraft will increase with the number of movements and as the size of these aircraft are increased. It should also be noted that aerodynamic noise will be a significant problem with future generation of jet aircraft.

In determining the number of people affected by aircraft noise, it is erroneous only to look at the land area comprised in a contour without regard to population. One only needs to look at O'Hare Field in Chicago which has a much greater land area affected by noise than LaGuardia Airport in New York where an actual count of people shows a greater significant number of the population affected by aircraft noise than at O'Hare Field. The noise characteristic at each airport will vary depending upon the mix of fleet, whether, the airport is an international or merely a domestic airport, the location of the runways, the location of the airport in



relation to water and land, the number of aircraft movements at the airport, the distance of nearby communities from the airport and the degree of flexibility in setting flight paths to avoid noise sensitive areas.

The impact of aircraft noise will have a greater effect on Pickering than Malton by reason of the communities surrounding the proposed Pickering Airport being rural communities with a lower level of ambient or background noise than Malton. However, the actual number of people affected by noise disturbance from aircraft operations will be considerably less at Pickering than at Malton.

The Commission accepts the projections by the Ministry of Transport, Canada, of the benefits that will be obtained at Malton in the reduction of the number of people affected by noise from aircraft operations once all charter aircraft (both scheduled and non-scheduled) pure freighters, and north European traffic are transferred to Pickering as this will basically remove from Malton the JT3D powered aircraft which are at least 10 decibels higher in noise emission than the aircraft which will remain at Malton. However, it should be noted that the JT8D powered aircraft, which will remain at Malton, exceed the limits of FAR 36 and will continue to form a significant part of the fleet flying from Malton for at least the next 15 years.

Applying the NEF contours in the manner in which they should be applied, that is for comparative purposes only, the Commission concludes:

- (a) There will be a greater number of people affected by aircraft operations if Malton is expanded within its present boundaries and all traffic is assigned to Malton than there would be if Pickering were opened.
- (b) There will be a reduction in the number of people affected by noise disturbance from aircraft operations at Malton if all north European traffic, all charter traffic (both scheduled and non-scheduled), and all freighters are assigned to Pickering, and there will be less people affected at Pickering.
- (c) There will be a further reduction in the number of people affected by disturbance from flight operations

at Malton if all international traffic (except U.S.A. traffic) is transferred to Pickering instead of only part of the international traffic, and there will be no increase in the number of people affected by disturbance from flight operations at Pickering by so doing.

## **AIRCRAFT NOISE ABATEMENT, OR REDUCTION AND CONTROL**

The Commission heard evidence and considered the question of aircraft noise reduction by means of legislation, technology and flight procedures.

### **LEGISLATION – CANADA**

The control of aeronautics in Canada is governed by the *Aeronautics Act*, R.S.C. c.2,s.1. This Act charges the Minister of Transport, Canada, to consider, draft and prepare for approval by the Governor General in Council such regulations as may be considered necessary for the control or operation of aeronautics in Canada. In addition, the Act vests the Minister of Transport, Canada, with broad powers to make regulations, subject to the approval of the Governor in Council, to regulate air navigation over Canada.

The only specific regulation made under the Act in relation to aircraft noise abatement is a prohibition against flying aircraft in a manner as to create a shock wave or sonic boom.

Regulations have been passed under the Act authorizing the Minister to make air navigation orders and flight procedures. These have been used for aircraft noise reduction such as preferential runways, curfews, glide path degrees for approaching aircraft and other aircraft noise reduction procedures. These are not of general application and some are only advisory.

## **INTERNATIONAL CIVIL AVIATION ORGANIZATION**

Canada is a member of the International Civil Aviation Organization, hereinafter called ICAO, comprising the signatories to the Convention on International Civil Aviation (Chicago 1944). There are 124 countries belonging to this organization.

ICAO has adopted certain standards and recommended practices for the reduction of aircraft noise. These are embodied in Annex 16 to the Convention which was passed by the Council of ICAO, effective August, 1971 to become applicable 6 January, 1972.

Recognition of the seriousness of aircraft noise in the vicinity of many of the airports of the world requiring urgent solution was recognized by ICAO at a Noise Conference in London in 1966. Recommendations for the reduction of aircraft noise and disturbance were made at an ICAO conference held in 1967, based upon the conclusions of the 1966 conference. At its 1968 conference, ICAO passed a resolution instructing its Council to call another conference to establish international specifications and associated guidance material relating to aircraft noise. A special conference was held in 1969 to deal with aircraft noise in the vicinity of aerodromes and to consider many of the aspects related to aircraft noise and its reduction. Based upon the recommendations from this conference, Annex 16 was formulated.

Annex 16 sets out minimum standards applicable to all subsonic jet airplanes in excess of 12,566 lbs. weight, except short take-off and landing aircraft, engaged in international air navigation, which are either:

- (a) powered by engines with by-pass ratio of two or more and for which a certificate of airworthiness for the individual airplane was first issued on or after 1 March, 1972, or
- (b) powered by other classes of engines, and in respect of which the application for certificate of airworthiness for the prototype was accepted, or another equivalent prescribed procedure was carried out by the certificating authorities, on or after 1 January, 1969.

The Annex establishes maximum noise levels for aircraft, based on effective perceived noise levels (EPNdB) when tested in

accordance with specified flight procedures, at a lateral noise measurement point, at a flyover noise measurement point and at an approach noise measurement point, based upon the certificated weight of the aircraft. Trade-offs are permitted where maximum noise levels are exceeded at one or two measurement points and there is a corresponding reduction at the other point or points provided that the excess in noise level at a single point shall not be greater than a specified EPNdB, and provided further, that the aggregate of excesses does not exceed a specified EPNdB. There are different requirements for aircraft certificated prior to 1 December, 1969 to those certificated subsequent to 1 December, 1969, the limitation being greater for the latter.

The Annex also deals with aircraft noise certification, aircraft noise measurement for monitoring purposes, noise exposure reference unit for land use planning and aircraft noise abatement operating procedures. The Annex recognizes that there are major advantages to public amenity, in case of certain aircraft situations, in adopting some noise abatement operating procedures designed to keep aircraft as far away as possible from communities in a way which keeps noise disturbance to the minimum. Some of these operating procedures include use of noise preferential runways, use of noise preferential routes, use of turns to direct aircraft away from noise sensitive areas under or adjacent to the usual take-off and approach flight paths, use of a steep initial climb gradient, so that the aircraft on take-off will reach a noise sensitive area at the maximum possible height, the use of reduced power thrust over noise critical areas and turns during approach and on take-off climb.

The Annex requires contracting states to suspend or revoke the noise certification of an aircraft if the aircraft ceases to comply with applicable noise standards.

The effect of the aircraft certification provisions of Annex 16 is that all aircraft manufactured after 1976 will have to comply with the requirements of Annex 16.

Signatories or contracting states to the convention are required to notify the Council before the date specified in the resolution of adoption of any difference that will exist on the date of applicability of the Annex between national regulations and practices and

the international standards set out in an Annex. Annexes to the Convention do not automatically become mandatory for all States.

Some of the contracting states have notified the Council that no differences will exist between their national regulations and recommended practices from those in Annex 16, and some contracting states have given notice of differences existing between their national regulations and practices from those of the standards and recommendations of Annex 16. These notices have advised in some cases that their standards are greater (The United States) and in other instances that they will not be able to meet the requirements of the Annex. The majority of the contracting states have submitted no information to the Council whatsoever.

While Canada is a signatory to the convention, it has not filed any objection to the Annex nor has it implemented any of its provisions.

The Annex incorporates no provision in respect to retrofit and refan.

There is a committee at work within the Ministry of Transport, Canada, drafting a navigation order in respect to aircraft noise standards. It is expected that the order will be available for consultation with the air transportation industry sometime during mid 1974, and will be promulgated possibly by the end of 1974. It is being drafted on the basis that all aircraft operating into certain designated airports will have to meet the noise certification standards set out in Annex 16. The proposed date for compliance is 1980.

## **THE UNITED STATES**

The United States Government has adopted a determined and vigorous policy for the control and reduction of aircraft noise. This policy is evidenced by *Public Law 90-411* issued July 1968, which authorized the Federal Aviation Administration to prescribe and amend such regulations as they may find necessary to provide for the control and abatement of aircraft noise and sonic boom. This was followed by the issue of Part 36 of the Federal Aviation Regulations, made under *The Federal Aviation Act of 1958*, *The National Environmental Policy Act, 1969* and amendment to *The*



*Clean Air Act*, December 1970, directing the Environmental Protection Agency to study the effects of noise on public health and welfare and *The Noise Control Act of 1972*.

It is stated in *The Noise Control Act of 1972*, that it is the policy of the United States to promote an environment for all Americans free from noise that jeopardizes their health and welfare. The Act not only authorizes the publication of regulations for aircraft noise standards, the control and abatement of aircraft noise and sonic boom but also authorizes regulations for noise emission standards for each product which is identified as a major source of noise in the fields of construction equipment, transportation equipment, any motor or engine, including any equipment of which an engine or motor is an integral part, and electrical and electronic equipment.

Part 36 of The Federal Aviation Regulations, hereinafter called FAR 36, was promulgated in November 1969 and was effective 1 December, 1969.

In the exercise of its regulatory powers, The Federal Aviation Administration takes three steps. If the proposed action is of a nature that information and technology are not readily available to accompany the regulation, an Advance Notice of Proposed Rule Making will be given, which is an expression of general intent to regulate. Those who will be affected by the regulation are asked to provide comment and information to the Administration. After consideration of the submissions, a decision is then made whether to continue with the proposed regulation. If a decision is made to continue, a Notice of Proposed Rule Making is issued and comment is requested from the public and other interested parties. The Federal Aviation Administration may proceed to Notice of Proposed Rule Making without giving Advance Notice of Proposed Rule Making where it feels that there is sufficient proven data and technology. Comments received following Notice of Proposed Rule Making are assessed and a decision is then made as to whether to issue the regulation in final form.

FAR 36 prescribes noise certification standards for the issue of type certificates and changes to those certificates for subsonic transport category airplanes and subsonic turbo jet powered airplanes regardless of category. It restricts the maximum allowable noise of newly designed transport category aircraft and turbo jet engine powered subsonic airplanes. It prohibits the modification of

new or old aircraft in such a way as to increase their noise levels. The standards of FAR 36 are more stringent than those established by ICAO.

The history of some of the regulations issued under *The Federal Aviation Act* of 1958 is as follows:

FAR Part 91 which prohibits sonic boom by civil aircraft within the United States was issued March, 1973, effective April 1973.

Regulations have been issued, January 1974, applying the standards of FAR 36 to newly produced airplanes of older type designs such as newly produced 727's and 737's, etc.

Notice of Proposed Rule Making was issued September 1971 to tighten the test procedures and conditions for ensuring that modifications of turbojet and transport category subsonic airplanes do not increase the noise generated by those aircraft.

Advance Notice of Proposed Rule Making to restrict the noise levels of civil supersonic aircraft was issued in August 1970. The Federal Aviation Administration is now processing for issue the proposed regulation.

Advance Notice of Proposed Rule Making was issued in August 1970, in respect to the reduction of the noise level of currently operating aircraft to the levels prescribed for new aircraft by FAR 36.

Notice of Proposed Rule Making was issued in March 1974, in respect to civil aircraft fleet noise requirements. This would require all existing commercial aircraft to progressively meet the requirements of FAR 36 by providing that one-half of the current fleet meet the requirements by 1 July, 1976 and the full fleet to meet the requirements by 1 July, 1978. This will involve the acoustical retrofit of some aircraft.

Notice of Proposed Rule Making was given October 1973, in respect to the establishment of noise standards for propeller driven small airplanes. This will limit the noise level of new design propeller driven small airplanes.

Advance Notice of Proposed Rule Making was issued December 1973 of the establishment of noise standards for short-haul aircraft.

Advance Notice of Proposed Rule Making was given March

1974 of the establishment of a two segment instrument landing noise abatement approach.

The Federal Aviation Administration is also preparing Notice of Proposed Rule Making in respect to the following:

- (a) the lowering of noise standards of present FAR 36 for new aircraft designs by some 10 EPNdB.
- (b) take-off and climb-out procedures to reduce noise on take-off, and,
- (c) the introduction of a fourth measurement point for aircraft noise certification applicable to aircraft of new design.

### **THE JET ENGINE**

The jet engine and the noise emitted by it are very complex problems which will require continued study for an indeterminable period in the future before it will ever be completely controlled.

For an understanding of the problem created by the jet engine, without being overly technical, the following is noted:

Engine jet thrust is a function of the quantity of air processed by the engine and the velocity of exhaust gases.

The low frequency jet noise (or exhaust noise) rumble is strongly influenced by the exhaust velocity.

The high frequency fan noise is affected somewhat by the rotational speed of the fan but predominantly by specific component design characteristics such as blade spacing and blade loading (energy developed over the fan blade area).

The aircraft which cause the greatest noise, often referred to as first generation jets, are powered by JT3D engines (707's, and DC-8's) and JT8D engines (B-727's, B-737's and DC-9's). The engine frontal area (or diameter) of these engines is small thereby limiting the quantity of air that is introduced into the engine. This results in high velocity exhaust conditions required to develop the necessary thrust. It is the high exhaust velocities that produce high jet noise characteristics. The addition of a fan to the basic engine provided additional air at low velocity that, when mixed with the higher velocity of the basic jet exhaust, produced significant reduction in total engine exhaust velocity. In addition, more exhaust energy was extracted by a larger turbine which was required to drive the fan, thereby reducing the engine core velocity

as well. This resulted in exhaust noise reductions. There was a physical limit to the size of the fan that could be used in these engines. These were identified as low by-pass ratio fans (the by-pass ratio refers to the quantity of additional low velocity air developed by the fan relative to the air passing through the basic jet engine).

The addition of the fan reduced the exhaust rumble at take-off. It magnified the high frequency "squeal" from the front of the engine. On landing approach, with the engine at a relatively low thrust level, the fan noise now predominated.

At the time the low by-pass fan was being developed for the then existing generation commercial jet aircraft, research was being conducted into high by-pass fans. The result of these studies proved conclusively that benefits in performance, operating costs and noise would result from a high by-pass fan. High by-pass fans are incorporated into the second generation jet aircraft such as the B-747, the DC-10 and L-1011 which have shown improvements in noise technology as well as operating costs over those of the earlier generation jet aircraft.

It should be noted that the first generation jet aircraft do not meet the requirements of FAR 36 while the later generation of jet aircraft do with the exception of some of the earlier B-747's.

## **RETROFIT AND REFAN**

Extensive research and development has been conducted in the United States, funded by the Federal Government, for the reduction of noise created by the first generation jet aircraft. These programmes are known as retrofit and refan.

### **RETROFIT**

It was found that some of the noise of the jet engine was due to the high flow of air through the fan discharge duct which was located in the front quarter of the engine. Modifications were made to extend the discharge duct to the back of the engine. Sound absorption acoustical material to absorb most of the high frequency noise energy developed by the fan and compressor is applied to the inlet, to the inner wall of the cowl, or nacelle, and at



the tailpipe. The modification of the jet engine by the application of sound absorption material (SAM) is known as retrofit. The effect of retrofitting a jet engine is that it enables the engine to meet the requirements of FAR 36.

## **REFAN**

Refan is an engine modification to replace the two stage fan section on both JT3D and JT8D powered jet engines with a larger diameter single stage fan. The refan programme would increase the engine by-pass ratio for these engines resulting in lower exhaust velocities which in turn would result in reduced jet noise. Appropriate sound absorption material is also required to reduce the high frequency fan noise which is most noticeable on approach to landing. The application of the refanned engine to the 727 and DC-9 with aft fuselage mounted engines would involve major aft-end fuselage and tail modifications and some modifications may be required to the front end of the aircraft to maintain balance and stability. A serious problem also exists in the application of the refanned and SAM engine to the 737 which has under wing engines. Modifications to the landing gear, wing and possibly the fuselage will be required, due to the under the wing engine installation, to maintain adequate ground clearance.

The refan programme will not apply to the JT3D powered aircraft as such a programme will not provide any meaningful reduction in the noise emitted by such aircraft. However, while retrofit will result in some reduction in the noise level of JT8D powered aircraft, a greater reduction can be obtained through both the refan and retrofit programmes. The refan development programme is continuing. There have been initial ground tests of a DC-9 aircraft. Flight tests for a 727 aircraft are due to take place in mid 1975. No development is currently taking place in respect to 737 aircraft.

## **THE POSITION OF THE INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA) TO RETROFIT**

At its 29th Annual General Meeting in Auckland in 1973, the International Air Transport Association approved a policy statement in respect to retrofit.



It is stated in the policy statement that IATA will cooperate in and support any realistic programme towards the reduction of noise produced by non-noise certificated aircraft to the levels specified in ICAO Annex 16. Any regulations developed for such purpose should be internationally agreed, should be technically feasible and should be economically reasonable and acoustically significant.

The salient features of the policy statement are as follows:

1. Regulations should only apply to specific aircraft types of which fully developed modifications have been demonstrated and for which noise and performance guarantees and firm prices are available.
2. Any consequent adverse effects on aircraft weight, performance and operating costs by reason of such modifications should be reasonable.
3. The cost of modifications for each four engine jet aircraft will be approximately \$1 Million and the approximate cost for each two engine and three engine jet aircraft will be approximately \$250,000.00. The estimated aggregate cost to the members of IATA will be approximately \$1.5 Billion. Recognition should be given to the fact that airlines cannot fund such a project out of operating revenues. Public funding to accomplish such modifications is therefore essential as a prerequisite to the programme.
4. Assurances should be given that after such modification further modification for noise purposes during the remaining operating life of the aircraft will not be required.
5. Assurances should be given that no rules will be promulgated adversely affecting an aircraft type pending the development of suitable definitive modifications for that type of aircraft in the State of manufacture.
6. Reasonable timetables for implementation of any regulations should be afforded to the airlines, including consideration for the remaining operating life of the aircraft.
7. The operation of aircraft which have demonstrated compliance with noise levels specified in Annex 16 (First Edition as originally issued August 1971) should be protected against curfews and operating restrictions

which are not related to airworthiness or safety but are simply imposed for noise reasons.

There are a number of features of this policy statement that should be noted. It is the position of IATA that a retrofit programme should be government financed and that there should be performance guarantees before any retrofit programme is required. IATA is opposed to any unilateral action by a nation which would require retrofit. It is implied that if IATA members are required to undertake the retrofit of their JT8D powered aircraft, they should not be required to later undertake a refan of their JT8D powered aircraft, or in the alternative, if a refanning of the JT8D powered aircraft is contemplated, its members should not be required to undertake a retrofit of their JT8D powered aircraft until a decision has been made in respect to refan.

It is also implied that IATA is opposed to any rule that would prevent the manufacture of new aircraft of old design or which would affect an existing aircraft type that does not comply with Annex 16 until modifications for such aircraft have been developed. If this policy was adopted by governments, there would be no prohibition against the production of aircraft that do not meet the standards of Annex 16. IATA is opposed to any retrofit regulations being of general application and any such regulation should be modified having regard to the remaining life-span of such aircraft. If such regulations were framed in this manner, there would be no encouragement to an airline to dispose of a noisy aircraft which was nearing the end of its productivity. The consequence would thereby lessen the benefits in noise reduction which would be obtained from the retrofit of other aircraft of the same type that have an economic expectancy of productivity. IATA is opposed to any curfew or noise abatement procedure that would limit the operation of an aircraft that meets the requirements of Annex 16. As previously noted under this heading, the number of aircraft movements during the night, or curfew period, has a direct effect in the expansion of an NEF contour and thereby the number of people affected by noise disturbance from aircraft operations. In addition, it has also been previously noted that the number of aircraft movements in themselves has an effect on the number of people affected by noise disturbance and some alleviation from the disturbance can be achieved through various flight procedures.

## **COST OF RETROFIT AND REFAN PROGRAMMES**

The cost of the retrofit and refan programmes involves both direct and indirect costs. The direct costs are composed of the initial investment for appropriate equipment and spare parts as well as the labour and cost of installation. The indirect costs are made up of lost time while the aircraft is undergoing modification, changes in direct operating costs resulting from modifications due to increased weight, increase in fuel consumption and lower performance, and lost productivity. It should be noted that the direct costs will be one time costs while the indirect costs, with the exception of loss of income while the aircraft is undergoing modification, will continue through the lifetime of the aircraft.

The direct costs for retrofit to a 707 are approximately \$900,000.00 per plane and the direct cost for retrofitting a DC-8 ranges from between \$200,000.00 to \$1 million per plane depending upon whether the engine has a short nacelle or a long nacelle. The cost of retrofit for a 727 is approximately \$185,000.00 and the cost for a 737 and a DC-9 is approximately \$200,000.00.

The cost of refanning an aircraft is as follows:

727 — \$2 Million

737 — \$1.5 Million

DC-9 — \$1 Million

Estimates as to the earliest date that the retrofit programme could be started vary from late 1974 to the early 1980's and estimates of the earliest completion of the retrofit programme vary from 1978 to early 1980's. Estimates of the earliest date that the refan programme could commence vary from 1977 to the early 1980's and estimates as to the earliest completion date of this programme vary from 1981 and beyond. It should be noted that if the retrofit programme is required for the entire fleet followed by a refanning programme for JT8D engine powered aircraft the cost of investment incurred for the retrofit of the JT8D powered aircraft will be lost as these engines will again have to be retrofitted after refanning.

It is forecasted that there will be a substantial number of JT8D engine powered aircraft operating to the year 1985 and beyond,

and a substantial number of JT3D aircraft operating to 1985. It is estimated that retrofitted aircraft will be retired about 1993 and refanned modified aircraft will probably be retired about 1998.

Air Canada adduced evidence before the Commission as to the present composition of its fleet flying out of Malton and the forecast of the fleet composition to 1980. The fleet mix is as follows:

Lockheed L-1011 — 10 with an additional 2 to be leased in the summer time — *total* of 12.

727-200 — committed for a *total* of 11.

Boeing B-747 — 5 with a commitment for 1 additional, *total* of 6.

DC-9 — 52

DC-8 of various models — *total* of 38. It is probable that there will be a disposition of 13 of these by 1975. 6 DC-8's are cargo airplanes and will probably be retired during the period 1978-80.

Air Canada also adduced evidence that to retrofit the DC-8's, which will be retained, the DC-9's and 3 — 747's which do not meet the requirements of FAR 36, it will cost \$30 Million in 1974 dollars for equipment, including spare parts and labour. No estimate was given as to the indirect costs of the modification.

It was also testified, on behalf of Air Canada, that if required to retrofit its aircraft flying into the United States it would be cheaper from an operational point of view to retrofit the entire Air Canada fleet rather than to attempt to segregate the aircraft which meet the requirements of FAR 36 from those that do not meet the requirements of FAR 36.

Evidence was filed with the Commission that of the total fleet of 26 aircraft flown out of Malton by Canadian Pacific Air, 23 are powered by JT3D and JT8D aircraft engines. The Commission received no evidence from Canadian Pacific Air as to its plans in respect to the retrofit and refan programmes.

The estimated cost of the retrofit and refan programmes for the American fleet, including direct costs (costs of equipment, spare parts and labour) and the indirect costs (lost time while the engines are undergoing modifications, changes in direct operating costs and costs to make up any lost productivity) is \$5,001 Million in 1974 dollars.



There is mixed opinion in the United States as to the implementation of the retrofit and refan programmes. United States airlines, most foreign governments and foreign aircraft carriers have indicated strong opposition to the programmes. Anti-noise groups, airport operators, the Environmental Protection Agency and the National Academy of Sciences support the programmes. Recent hearings indicate that there is a difference of opinion among members of the United States House of Representative's Science and Astronautics subcommittee on aeronautics and space technology and among members of the aviation subcommittee of the Commerce Committee of the United States Senate in respect to each of the programmes and the implementation of the proposed rule requirement that the entire United States fleet meet the noise standards of FAR 36. Some members of each committee have expressed the view that the requirement of retrofit of the entire United States civil aircraft fleet may be premature due to the fact that refan technology will not be available until 1975. They also expressed concern that if the retrofit programme is required before the refan programme, there will be a loss of investment by retrofitting 727's, 737's and DC-9's due to the fact that the investment in these programmes will have to be discarded if refanning of these aircraft is required to be undertaken. Some members of each committee have indicated that they are not satisfied that valid evidence exists that the implementation of the retrofit programme will provide meaningful relief to the public particularly in the terms of acoustic impact on individuals. The same members have indicated that the refan programme, although more expensive, may be more effective than the retrofit programme in achieving a reduction in aircraft noise. They have urged a delay in the promulgation of the rule that would require one-half the United States civil aircraft fleet to meet the noise requirements of FAR 36 by 1 July, 1976 and the remainder by 1 July, 1978. Other members of each of the said committees have expressed the view that due to the cost of the refan programme it cannot be considered as a meaningful alternative to the retrofit programme. They have also expressed the opinion that the retrofit programme will bring meaningful relief to noise impacted communities. They have urged that the proposed rule which would require the entire United States civil aircraft fleet to be retrofitted by 1 July, 1978 be promulgated as soon as possible.



Representatives of both McDonnell Douglas Corporation and Boeing Co., in testifying before each of the said sub-committees, agreed that the timetable of the said proposed rule could not be met. The earliest estimates which they could give that the said proposed rule could be met would be in the early 1980's having regard to the shortage of materials and required time for further development. McDonnell Douglas representatives testified before the committee that in their opinion, the retrofit programme would not provide sufficient noise reduction to satisfy the public.

Evidence was adduced before the Commission that the Japanese Government plans to undertake the retrofit of the Japanese fleet. In its discussions with British and French airport authorities, the Commission learned that neither the French Government nor the United Kingdom Government has formulated any policy in respect to the retrofit and refan programmes.

The Commission heard evidence that if airline carriers are required to bear the costs of retrofitting their fleets, they would expect some consideration from governments in the form of removal of curfews.

In addition to the technological questions of the retrofit and refan programmes, the other major consideration is one of cost. Are the costs of the programmes to be borne by the air carrier? Are the costs of the programmes to be borne by national governments? Are the costs of the programmes to be levied against the air transportation user? Do the benefits to be derived from the programmes warrant the costs of the programmes, or would it be more economical to retire the JT3D and JT8D powered aircraft? No Government, except Japan, has adopted a policy on these questions.

#### **COMMENT**

The Commission is of the opinion that if the retrofit and refan programmes are undertaken the effect will be to prolong the use of the retrofitted and refanned aircraft in order to recover the costs of investment. This, in turn, will result in an inclination by the airlines to meet growth demands by greater use of the retrofitted and refanned aircraft rather than by the introduction of wide-bodied aircraft. This will result in greater aircraft movements. This, in turn, will negate some of the benefits to be gained from the programmes. As previously noted, an increase in aircraft movements has the

effect of expanding NEF contours and thereby increasing the number of people affected by noise from aircraft operations. It should also be noted that as the number of wide-bodied aircraft, which are regarded as quiet aircraft, are increased, the noise from these aircraft will increase. It should be mentioned that while the 747's, DC-10's do meet the requirements of FAR 36, on approach and take-off, they do so only marginally. It should also be noted that as the size of an aircraft is increased, airframe noise will be a significant problem.

The Commission hesitates to express an opinion as to the date the entire United States fleet will be required to meet the requirements of FAR 36. However, as a result of the determined effort demonstrated by the United States to reduce the level of noise generated by aircraft operations, it is reasonable to assume that by 1985 the entire American fleet will meet the present requirements of FAR 36.

The Commission is of the opinion that the jet engine and aerodynamics are very complex subjects which will require continued research for an understanding and control of the resulting noise. As a consequence, the present noise levels generated by jet aircraft operations will realistically be with us at least until 1985. While it is difficult to estimate the noise levels which will be generated by aircraft operations after 1985, it is fair to say that they will never be comparable to the noise level generated by a glider, as some people would have the Commission believe. However, it is probable that after 1985, the then noise level from aircraft operations will increase gradually with the probable increase in aircraft movements.

## **FLIGHT PROCEDURES AS A MEANS OF REDUCTION, OR ABATEMENT, OF AIRCRAFT NOISE**

There are a number of flight procedures and related procedures that may be employed to provide some alleviation from aircraft noise, such as curfews, use of the preferential runways, monitoring of aircraft noise to determine compliance with and to check the effectiveness of noise abatement requirements established from time to time for aircraft in flight or on ground, low drag

approach, multi-segment approach, power cut back after take-off and curved flight paths.

## **CURFEWS**

Curfews can take various forms. There can be complete prohibition against flights originating or terminating at an airport after a designated hour, such as is employed at Washington National Airport, Washington, D.C., U.S.A. There can be a prohibition against a certain type of aircraft flying into or out of an airport, such as the prohibition of four engine powered jet aircraft flying into LaGuardia Airport in the United States. There can be a percentage reduction of existing originating and terminating aircraft of each airline at an airport after a designated hour. There can be a complete ban on all normal summer night jet take-offs, night being 2300 hours to 0600 hours and summer being 1 April to 31 October inclusive, as is the case at Heathrow Airport in the United Kingdom. There can be a restriction on the introduction of new schedule flights between 2400 hours and 0700 hours, a prohibition against the use of an airport by jet aircraft for technical stops or charter operations between the hours of 2300 hours and 0700 hours, the restriction of authorized departures by jet aircraft to the use of certain runways between the hours of 2300 hours and 0700 hours and the restriction of landing aircraft to the use of certain runways between the hours of 2300 hours and 0700 hours as is the case at Malton.

While curfews definitely result in a reduction in noise disturbance caused by aircraft operations, curfews provide no answer to the disturbance from aircraft noise which results during the approach to the peak hour, during the peak hour and following the levelling off from the peak hour.

It must be noted that curfews impose a serious economic penalty on the air transportation system. Curfews prevent the maximum utilization of airports and aircraft and thereby reduce the rate of return from the substantial investment in these assets. This in turn is reflected in increased cost to the customer of the air transportation system. The imposition of a curfew at an airport where a flight originates and the imposition of a curfew at the airport of destination restricts flexibility in the scheduling of flights in that a flight must originate outside the curfew period, at the

airport of origin, and must land outside the curfew period, at the airport of destination at times acceptable to the travelling public. Curfews also limit the ability to spread out peak hour movements at an airport.

The Commission is also of the opinion that if a curfew at an airport prohibits the free movement of air cargo into and out of that airport, the airport will never reach its full potential for handling air cargo due to the fact that air cargo will be flown to the nearest airport where there is no limitation on operations. It is anticipated that the Charles de Gaulle Airport in Paris, France, which has no curfew, will make serious inroads into cargo operations at the London, England airports and the Frankfurt, Germany airport which have curfews.

### **PREFERENTIAL RUNWAY SYSTEM**

It has been mentioned, elsewhere in this Report, that a preferential runway system as a means of noise abatement was partially employed at Malton during part of the summer of 1972 and was employed completely in the summer of 1973. While the use of the preferential runway system during the summer of 1973 did result in some reduction of the number of people affected by noise from aircraft operations, it did have the effect of exposing people to noise from aircraft operations not previously affected.

It is discussed, elsewhere in this Report, that the use of a preferential runway system as a means of noise reduction does have the effect of reducing the maximum movements on each runway.

The employment of the preferential runway system is limited by snow, ice or slush, rain, oil or other substances on runways, cross winds, greater than 15 knots, and tail wind component, including gust effects, greater than 5 knots.

It was suggested in evidence that the number of people affected by disturbance from aircraft noise could be reduced by restricting the noisiest aircrafts to the use of a particular runway. There was evidence, which the Commission accepts, that it would be impractical from an operational point of view to put this into practice. It would not only create a heavy burden on the air traffic controller but would also result in a substantial reduction in runway utilization. Even if such a scheme was feasible, which it is not, the increase in movements by noisy aircraft on a particular

runway would create too intolerable a burden for the persons living under the flight paths of the runway which is designated for use by noisy aircraft.

## **MONITORING**

Effective monitoring of aircraft noise involves a large number of measurements per day from which an immediate indication of the noise levels may be obtained. From this information, adjustments can be made to flight procedures and flight paths in order to reduce aircraft noise. In addition, aircraft that stray from the flight path or make their approach below the designated altitude can be identified.

Monitoring sites are usually established for each departure route to ensure that the noise levels in the first major built-up area overflown do not exceed specified limits, some of the larger and noisier aircraft are unable to use certain runways. In order to meet specified limits, some of the wide-bodied aircraft which have substantial capacity for cargo and which require large supplies of fuel for operations on trans-Atlantic routes must reduce their fuel load or freight load so as to meet the limits. This in turn results in increased cost of operations due to the fact that the aircraft cannot carry a full pay-load or they must make a refueling stop earlier than normal which adds to the cost of operation, delays and inconveniences to the passenger.

The effect of establishment of specified noise limits at a particular point on a departure route, enforced through monitoring, is to reduce the level of noise to which persons residing within the area from runway take-off to the monitoring station are subjected. However, there is a tendency among pilots to apply full thrust once they have passed the monitor. This has been called "turning on the taps" and "beating the box". This in turn results in a greater level of noise disturbance to persons residing beyond the monitor point than they would have been subjected if there was no monitoring.

There was evidence adduced before the Commission, by a witness on behalf of the Ministry of Transport, Canada, that an extensive noise monitoring programme has been undertaken at Vancouver. This programme enabled the identification and quantification of the noise problem, and as a result, a substantial



reduction of aircraft noise disturbance to residents in the Richmond Community of Vancouver has been achieved. It is unfortunate that the Ministry has not seen fit to undertake such a programme at Malton, even though it gave an undertaking to do so six years ago.

It should be noted that Vancouver Airport has substantially fewer movements than Malton, and, at Vancouver, approaches and departures over water can be used.

### **LOW DRAG APPROACH**

With the low drag approach, an aircraft intercepts a glide slope at 3,000 feet above ground level, or more, and the extension of the under carriage and flap is delayed to reduce drag. This enables the aircraft to descend with reduced engine power. This procedure does not require any special equipment in the aircraft other than that required for a standard instrument landing approach (ILS).

The implementation of the low drag approach procedure would reduce disturbance from aircraft noise operation for persons situate outside the outer markers for runways 23R/05R, 05L/23L and 14/32 at Malton (3.8 — 4.1 nautical miles from the runway) although it would not provide any benefit for persons residing within the area of the outer marker for these runways.

The low drag approach on these runways has been recommended by the Ministry of Transport, Canada, but is not mandatory.

### **MULTI-SEGMENT APPROACH**

The multi-segment approach is commonly regarded as a two segment approach.

The general practice at present is for an approaching aircraft to fly to the glide slope and intercept it from below. Configuration and speed changes are made in anticipation of the interception, so as to secure stabilized conditions during the final descent. This stabilization is achieved by the 1,500 foot height point which is about 6 miles from the runway touchdown. The interception of the glide slope usually takes place at an angle of 2.5 degrees to 3 degrees.

The multi-segment approach involves an approaching aircraft intercepting the 3 degree glide slope from above by means of a steeper descent. This has the advantage that an aircraft approaches an airport from a higher point and descends to the 3 degree glide slope with less power thrust. The aircraft can make its descent at any angle from 6 degrees to 4 degrees, intercept and makes its transition into the 3 degree glide slope at about 700 feet above ground level, where stabilization takes place, which is approximately 2 or 3 miles from the end of the runway. There is little advantage, from a noise reduction point of view, of intercepting the glide slope at less than 700 feet.

With the interception of the glide slope from above at a higher degree of descent, the aircraft flies at a higher altitude at an increased speed until the point of interception of the 3 degree glide slope. It can then make its transition into the 3 degree glide slope by applying only a little additional power, or none at all, as a consequence it makes no additional noise than it would have if the pilot had adopted the standard 3 degree glide path approach as is the case when the glide slope is intercepted from below.

The point of descent for interception of the glide slope can take place anywhere from a 4 degree to a 6 degree angle. There is about a 4 decibel reduction in noise from aircraft operation as a result of each change in the degree of approach to a runway.

To summarize, the multi-segment approach involves the aircraft following a steeper approach than normal, 4 degrees to 6 degrees, and then joining the conventional 3 degrees ILS glide slope between 2 and 3 miles from runway touchdown, stabilizing on the final 3 degree glide slope at an altitude of 700 feet. The effect is that the aircraft is at a higher altitude during the intermediate approach stage and thereby lessens noise on the ground beneath. The greatest benefit would be to persons residing within a distance of 3 miles to 8 miles from the runway.

The introduction of a multi-segment approach at an airport where the fleet is composed of a mix of first and second generation aircraft can result in a reduction of noise from 10% to 40%, depending upon the characteristics of the particular airport, by reason of a greater height between the aircraft and the ground due to the steeper approach.

In order to put a multi-segment approach into practice, expenditures will have to be incurred for aircraft equipment and ground equipment. The modifications to the aircraft are estimated to cost between \$15,000.00 and \$45,000.00 depending upon the manner in which the aircraft is equipped, second generation aircraft being better equipped and therefore requiring less expenditure. These are estimated costs only as some contractors have expressed the view that equipment costs could be less. The cost of additional ground equipment is estimated to be \$5,000.00 — \$6,000.00.

The use of the multi-segment approach procedure is limited by weather. If there is a tail wind of 20 knots, or greater, a two segment approach is not possible. Engine and wing icing can prevent the use of this approach procedure. Cloud ceiling and visibility can also limit the use of this procedure. Wake turbulence is also a limiting factor depending upon the mix of aircraft, but the present separation between aircraft may be sufficient to overcome this problem. The problem of wake turbulence arises where a single-segment approach procedure and a multi-segment procedure are employed on the same runway. This is particularly the case where a larger aircraft is using the multi-segment approach and there is a calm wind. If there is not adequate separation, the smaller aircraft will be affected by wake turbulence.

In the United States, 300 to 400 pilots have flown the multi-segment approach procedure in 727's and DC-8's and none expressed any opinion that they experienced any difficult problems, and the majority of the pilots indicated that this procedure did not raise any problems at all.

Tests of the multi-segment approach procedure were to commence in May of 1974 at Vancouver Airport.

It should be noted that there is a greater limitation on the use of the multi-segment approach where aircraft fly under IFR conditions than under VFR conditions. The FAA has indicated it would propose initially limiting the multi-segment approach procedure to aircraft flying under VFR conditions.

The United States Air Line Pilots Association has recently expressed strong opposition to the multi-segment approach. In addition to the matters previously mentioned which limit the use of

this procedure, the Association claims that in the case of wide-bodied aircraft, the pilot must increase power when making transition from the 6 degree approach to intercept the 3 degree glide slope which in turn increases the noise on the ground at that point.

It is admitted by the FAA that continued investigation and research is required into the multi-segment approach procedure. Notwithstanding these limitations, it appears that the multi-segment approach procedure is the best hope of present day technology of achieving the greatest reduction in disturbance from noise from aircraft operations at the least cost and at the earliest time.

While the multi-segment approach or two-segment approach has not been introduced in the United Kingdom, the United Kingdom is increasing the degree of the glide slope approach to 4 degrees. As has been previously mentioned, each increase in the degree of the glide slope approach has the effect of increasing the distance between the ground and the aircraft on approach and thereby reduces the number of people affected by noise from approaching aircraft on landing.

### **POWER CUTBACKS AFTER TAKE-OFF**

An operational procedure has been developed to reduce noise caused by aircraft on take-off. On take-off from the runway, the aircraft climbs as rapidly as possible by means of application of maximum thrust, power or acceleration, to obtain high enough speed and altitude as possible, so that it approaches a noise sensitive community at an altitude of about 1,000 feet. The thrust or acceleration is reduced over the community, and thereby, the jet velocity and noise generated by the aircraft. The aircraft still continues to gain some altitude. Once the noise sensitive area is passed, thrust is again applied until the aircraft reaches its desired altitude.

The use of this procedure is limited by the weight of the aircraft, temperature, wind and safety conditions. On a warm, humid summer day with little wind, a fully loaded large-bodied aircraft or a stretched DC-8 requires the use of 10,000 feet of runway, and the rate of climb will be markedly less than at other times. Power cut-back after take-off has not achieved significant



noise reduction in unmodified aircraft. However, a retrofitted aircraft achieves a significant noise reduction.

The use of the power reduction after take-off could provide some benefit to the areas at Malton affected by operations from Runways 05L, 14 /32.

## **FLIGHTS PATHS**

Curved flight paths for approach and departure are used extensively at many of the airports of the world in order to avoid noise sensitive areas. The use of this procedure depends, to some extent, upon the type of equipment with which the aircraft is equipped.

On approach, large aircraft should be stabilized for descent at 700 feet — 1,000 feet altitude. Accordingly, any curved descent path should take place prior to the outer marker, which is 4.5 — 5 nautical miles from touch-down. The nearer the curved approach path is to the airport the better the results are for noise abatement. However, such a procedure could result, in some cases, in the stabilization altitude being lowered by an unacceptable amount.

For air management purposes, all approaching aircraft are held as high as possible, as long as possible, on their approach sequence and any benefit from a curved flight approach procedure would be limited to areas within the outer marker, that is 4.5 nautical miles to 5 nautical miles from touch-down.

On a normal straight-out departure, the aircraft follows a straight flight path until it attains an altitude of 1,500 to 3,000 feet before it turns on course. On a curved departure, the aircraft makes a turn after only a brief climb in order to avoid a noise sensitive area.

With a curved departure, the rate of climb is reduced during the turn which could result in a spreading of the noise over a greater area.

Presently, a straight-in approach and a straight-out departure flight paths are followed at Malton. On departure, the aircraft climbs straight until it reaches an altitude of 2,000 to 3,000 feet or more. It then makes its turn onto its route.

While additional ground equipment may be required for a curved arrival approach procedure at Malton, no additional air or



ground equipment would be required for curved departure procedure.

The evidence of witnesses on behalf of the Ministry of Transport, Canada, was to the effect that adoption of curved flight paths for approaching and departing aircraft would be of little benefit at Malton. However, the use of curved flight path departures on runways 23L and 23R would benefit the areas affected by operations from these runways, which areas are becoming rapidly populated.

The Commission is of the opinion that further studies should be conducted into the benefits that could result from the employment of these procedures by directing as much approaching and departing traffic as possible over Highways 401 and 427 where the level of background noise is highest.

### **REDUCTION OF GROUND RUN-UP NOISE**

Jet engines require a short period of ground running, so that they can be tested for safety reasons. After routine maintenance or repairs, longer running is necessary. At the London Airports to minimize the disturbance resulting from the running-up of jet engines, the running-up takes place, wherever possible, in special mufflers, which are giant silencers placed close to the engines. In Germany, a special structure has been developed in which the ground running of the engines can take place. It is anticipated that the noise from the running-up will be confined to the compartment. This special structure will be installed at the new Tegel Airport in Berlin.

In addition, noise from ground run-up operations can be reduced by restricting the testing of engines to specified times and places and the installation of noise shields around maintenance areas.

It has been noted earlier in this Report that there are communities around Malton that experience noise disturbance from ground running operations since the opening of Terminal II. This disturbance can and should be reduced by these means which should be implemented.

## COMMENT

Results are being obtained in the reduction of noise caused by aircraft operations. Second generation jet aircraft are less noisy than first generation jet aircraft as a result of technological improvements and modifications to the jet engine. The greatest success has been achieved in the reduction of noise on take-off and side line noise. The success in reduction of aircraft noise on approach has not been as great.

The jet engine is a very complex piece of equipment. A greater understanding of its operation has enabled modifications which have resulted in a reduction of some of the noise emitted by it. As modifications are made to the jet engine for reduction of some aspects of the resulting noise, the existence of other factors which contribute to the noise emitted by the engine are discovered, and now predominate, such as core noise. The control of the noise emitted by these other factors will require continued study and research for the foreseeable future.

The United States has set for itself the goal of a 10 EPNdB reduction in aircraft noise per decade from 1970 to the year 2000. The United States has made a marked progress toward the achievement of this goal for the period 1970 to 1980. However this achievement has been basically related to the reduction of noise emitted by second generation aircraft. The accomplishment of this goal for succeeding decades is questionable as the point of diminishing return, in relation to foreseeable technology, is being reached.

It should again be noted that as aircraft become larger aerodynamic noise will be a problem.

The exact extent of the noise that will be emitted by an aircraft fleet flying into and from an airport in which second generation aircraft will dominate is uncertain. It can only be stated that an increase in aircraft movements will result in an increase in disturbance from aircraft operations.

While it is anticipated that the DC-8's will be basically phased out by the mid 1980's the DC-9's will form a substantial part of aircraft fleets until 1990 and even beyond. If any reduction is to be achieved in the noise emitted by these type of aircraft, it will have to be done through the retrofit and refan programmes. It is difficult

to predict, at this time, whether either of these programmes will be implemented, and if so, which one. Accordingly, the Commission is unable to make an estimate as to when the existing world fleet will meet the standards of FAR 36. There are international problems associated with a country implementing a rule requiring all existing aircraft flying into its airports to meet the requirements of FAR 36. The United States FAA has indicated to the Secretary-General of ICAO that it supports a multi-lateral approach to the rule. But, it has not committed itself to multi-lateral agreement with respect to the retrofit and refan requirements as it is still of the belief that foreign aircraft operating into the United States should be included with its own aircraft in noise reduction actions.

The Commission concludes that noise from aircraft operation will always be with us. While there will be some reduction in the level of noise from that which prevails today, it would be unrealistic to make an estimate as to the extent of the reduction of noise and as to the date when the reduction will occur, other than to state that it is possible by 1985. This estimate must be qualified by the fact that an increase in aircraft movements will result in an increase in noise disturbance from aircraft operations. The probability must also be considered that there will be change in future life style. This raises the question as to whether the reduction in aircraft noise that may be achieved by 1985 will be acceptable to the life style of 1985, or whether the then life style will demand that there be a greater reduction in the level of noise from aircraft operations.

While a reduction in noise from aircraft operations can result from the introduction of various aircraft operational procedures, the implementation of a particular procedure alone will not by itself result in an overall reduction in noise caused by aircraft operations. A variety of operational procedures will have to be introduced to obtain the maximum possible reduction in noise. In some cases, significant gains in reduction of noise from aircraft operations by the introduction of certain procedures will only be achieved after all first generation aircraft are retrofitted and refanned.

The achievements which have been obtained to date in the control of noise from aircraft operations is attributable to the vigorous and determined policy pursued by the United States. Without such a determination on the part of the United States, it is

highly doubtful that there would have been any marked change in the noise emitted by the second generation aircraft from that emitted by the first generation aircraft. This success would not have been achieved without legislation.

While the policy pursued by the Ministry of Transport, Canada, for the reduction of noise caused by aircraft operations has not been one of complete indifference, there has not been forcible and unflinching attack on the problem. The Commission was disturbed to hear the Director of Civil Aeronautics testify that the Ministry of Transport, Canada, did not favour the implementation of regulations of general application due to the fact that noise was not yet a problem at some airports. A policy based upon complacency until a problem arises can only lead to the jeopardy of the whole air transportation system. While the Commission accepts the proposition that different factors exist at different airports, such as approaches and take-offs may be possible over water, this can be recognized by making exceptions in such instances to regulations of general application.

The Commission is of the opinion that undue consideration has been given by the Ministry of Transport, Canada, in seeking to obtain the approval of the International Air Transportation Association (IATA) before implementing any change in flight procedures. The Commission can only report that its experience with IATA has been less than fruitful. Newspapers reported the appointment of this Commission shortly after its appointment. The Commission advertised extensively, as has been previously noted, of its appointment in mid-December, 1973. Commission counsel wrote to IATA in February, 1974, asking for its participation in the Hearings. No response was received. After the termination of the postal strike, Commission counsel wrote to each member of the IATA Airport Consultative Committee for the Toronto Region requesting participation in the Public Hearings of the Commission. The only positive response received was from Air Canada, which agreed to appear as a Commission witness. The other carriers took the position that they did not have enough time to prepare for the Hearings. If the Ministry of Transport, Canada, continues the policy of seeking the opinion of IATA before implementing any noise programme, not alone its approval, it is doubtful that any noise abatement programme will be introduced.



The Commission is also of the opinion that the Ministry of Transport, Canada is unduly concerned that it may infringe bilateral agreements by the introduction of any new procedures, standards or requirements. These practices have been introduced into the United States and United Kingdom, notwithstanding bilateral agreements, without reaction.

The Commission is of the opinion that if the problem of noise emitted from aircraft operations is to be controlled in Canada, it must be by way of regulation under *The Aeronautics Act*. The Commission recommends that such regulations be introduced in a manner similar to that followed under the *Federal Aviation Act of 1958*, of the United States, that is, an Advance Notice of Proposed Rule Making be given where insufficient data and technology are known; Notice of Proposed Rule Making be given where sufficient data is known followed by the implementation of the regulation. Each phase should have a prescribed time limit in which comments may be submitted, and where there is substantial opposition to a Notice of Proposed Rule Making, a hearing should be held.

It must be remembered that Malton must continue in its present role, if there is a decision to build Pickering, until Pickering is opened. Realistically, if such a decision is now made, it will not be possible to open Pickering until some time between 1982 and 1984. It must also be remembered that even if Pickering is opened, Malton will continue to play a significant role in the Central Ontario Air Transportation System.

The Commission, in any event, recommends that there be a complete re-examination and reconsideration of the flight operational procedures that can be implemented to bring some alleviation in the noise resulting from aircraft operations at Malton. The Commission recommends that this work be conducted by a committee responsible directly to the Minister of Transport, Canada. This committee should also be directed to conduct surveys for determination of attitudinal response of the residents in the communities adjacent to the airport. The survey should be designed in a manner to determine the attitudinal response in a 3 period day; day, 0700 hours to 1900 hours; evening, 1900 hours to 2300 hours and night 2300 hours to 0700 hours. The committee should also have authority to cause to be conducted a meaningful aircraft monitoring programme. A reasonable time limit should be set for



the completion of the report of the committee. The implementation of the recommendations of the committee should follow as soon as possible.



### **3. Terminal and Related Ground Facilities at Malton**

The Commission discusses present runway capacity and the requirements for future runway capacity at Malton under the heading "Runway Capacity". It now discusses the evidence concerning present and future terminal and related ground facilities at Malton.

The present Malton Airport comprises 4,272 acres of land, of which 2,705 acres are used for airport facilities. Included in the 4,272 acres is a smaller parcel of land situated north of Airport Road, and is hereinafter referred to as the "northeast parcel".

The existing facilities at Malton, in addition to runways and taxi-ways, consist of an air cargo complex, a service complex, a terminal support complex, an air traffic control centre, a field maintenance garage, a fire hall, transmitter and receiver areas, a general aviation complex, parking areas, for the public and for employees, and a terminal complex.

The air cargo complex consists of cargo facilities and warehouses. In addition, there is included in this complex, support services for airlines such as flight kitchens, airline ramp and maintenance service equipment, sewage disposal and individual employee parking spaces. Car rental maintenance and storage areas are also located on this site and a post office.

The general aviation complex is known as Skyport. A number of private agencies in this complex provide maintenance and storage services for general aviation.

The service complex consists of an administration building, a central workshop for airport maintenance and a central power plant to provide heat and air-conditioning to the airport buildings.

The airport traffic centre complex consists of an air traffic control tower and an air traffic control service area.

The fire hall is operated on a 24-hour basis to provide aircraft rescue and fire protection. Adjacent to the fire hall is an area for fire fighter training.

The field maintenance complex consists basically of an equipment maintenance garage from which the entire airport ground fleet is controlled.

Parking areas are provided for both the public and employees. An enclosed public parking garage has been constructed on top of Terminal I. This garage has a capacity for approximately 2,200 cars. Additional parking is provided for Terminal I at an open remote parking lot which can accommodate approximately 980 vehicles. An open parking lot provides parking service for Terminal II. This parking lot can accommodate 3,300 automobiles. There are a number of parking areas to service individual facilities such as maintenance, hangars, power plants, administration building, flight kitchens and air cargo complex. There are two main employee parking lot areas.

The terminal complex comprises two terminal buildings, Terminal I and Terminal II. The Commission intentionally uses the words "terminal complex" as it would be misleading to use only the words terminal buildings. In addition to the actual terminal building, there must be sufficient land adjacent to the terminal building for aircraft parking aprons or gates.

The land area requirement for aircraft aprons is much greater than the land requirement for the actual terminal building. The land area required for the aircraft aprons varies with the size of aircraft. A B-747 requires an aircraft apron approximately comparable to aircraft aprons required for two medium size jet aircraft.

The actual time that an aircraft occupies an apron will vary depending upon the flight sector in which it is operated. The occupancy time of an apron by an aircraft operated in the short-haul sector will be less than the occupancy time of an aircraft operated in the long-haul domestic sector and much less than an aircraft operated in the international sector. If the occupancy time of all aircraft flown in the various flight sectors was averaged, the average occupancy time of an apron by an aircraft at Malton would be approximately 100 minutes.

It should be noted that even if facilities are provided for the processing of passengers at a downtown location, or any other off-site location, it will not reduce to any material extent the land required for a terminal complex having regard to the amount of land required for aircraft aprons and the number of aprons required.

Terminal I was opened in February, 1964. It has undergone a series of modifications, primarily due to the advent of the jumbo jet. At present, it is used to service all international, trans-border and domestic air carriers serving the Toronto Metroplex with the exception of Air Canada. It presently has 23 gate positions, or aprons, around the terminal and 8 off-terminal gate positions, or aprons, away from the building on the south side of the terminal, for a total of 31. However, only 30 gate positions or aprons may be used at one time.

The first phase of Terminal II was opened in June, 1972. The present stage of development of Terminal II was opened in April, 1973. It is used exclusively by Air Canada for its own operations and that of airlines serviced by it, Aero Mexico and Air Jamaica, for the processing of all its domestic, trans-border and international scheduled and charter flights. There are 16 gate positions, or aprons, around the terminal, 5 off-terminal gate positions, or aprons, and 6 remote aprons for a total of 27.

When Malton Airport was expanded in the late 1950's and early 1960's to its present boundaries, a master plan was prepared for the ultimate development of the 4,272 acres which then comprised the airport site. At its ultimate development, the master plan provided for Malton to have sufficient capacity for handling annually 13 million enplaned and deplaned passengers. A forecast was made in 1964 of the annual enplaned and deplaned passengers at Malton for various time periods. It was predicted that by the year 1980 the annual number of enplaned and deplaned passengers would be 6.9 million. As noted elsewhere in this report, several additional forecasts of enplaned and deplaned passengers have been made subsequent to 1964 with different results. In addition, the actual experience at Malton to date has exceeded the 1964 forecast for 1980. To understand the terminal capacity required at Malton, the Commission believes it would be helpful to set out the actual 1973 total enplaned and deplaned passengers at Malton and



the forecasts of enplaned and deplaned passengers for the central Ontario market for the years 1978, 1980 and 1984, which are as follows:

<u>Year</u>	<u>Enplaned/Deplaned</u>
1973	9.2 million
1978	13.3 million
1980	15.9 million
1984	21.5 million

Terminal I, with certain modifications, will be adequate to meet enplaned and deplaned passenger requirements for all air carriers, except Air Canada, to the year 1975 or 1976. Notwithstanding any modifications, there will be no increase in the number of gate positions, or aprons, for aircraft. The forecasted increase in the number of jumbo jets using the terminal will necessitate the reduction of the present gate positions by 2 for a total of 28 that can be used at one time. Additional facilities will have to be provided after 1975 or 1976.

In order to meet the requirements of all air carriers, other than Air Canada, from 1975 or 1976 to 1980, the existing cargo complex will have to be converted into a temporary third terminal. To convert the present cargo complex into a temporary third terminal, the cargo facilities will have to be relocated to the northeast parcel of the airport lands. A relocation of the cargo facilities on this site will result in an access problem as this parcel is separated from the main airport site by Airport Road. Another site will have to be found for the remote transmitter which is presently located on the northeast parcel.

Terminal II has not yet been constructed to its ultimate stage of development. By completing Terminal II to its final stage of development, all the requirements of Air Canada will be met to the year 1980 or 1981. At final development, the Terminal II complex will provide an additional 11 gate positions, or aprons, for a total of 38. In addition to final development of Terminal II, the open

parking lot area which serves it will have to be replaced by a multi-level structure in order to provide adequate parking facilities for the public.

To continue all aircraft movements at Malton beyond the year 1980, a permanent third terminal will have to be constructed on the west side of the airport to replace the temporary terminal which had been constructed in the area of the cargo complex. If a fourth runway is constructed parallel to present runway 14/32 at a distance of 4,400 feet, the permanent third terminal complex could be constructed between the runways. The third terminal complex would provide an additional 38 remote gate positions, or aprons. In addition to the actual terminal complex, support services would also be required to be constructed.

With modifications to Terminal I, an expansion of Terminal II to full development, and the construction of a permanent Terminal III, including aircraft parking gates, Malton will have capacity to meet the low forecasts of the Ministry of Transport, Canada, of enplaned and deplaned passengers to 1986 or 1987, and capacity to meet the probable forecast of enplaned and deplaned passengers to 1984 or 1985.

It should be noted that after all previously mentioned changes have been made, including the construction of a runway parallel to runway 14/32, separated from existing runway 14/32 at a distance of 4,400 feet, all lands within the present boundaries of Malton would be developed to their ultimate. At its ultimate stage of development, there will only be 104 to 106 aircraft gate positions, or aprons.

The Commission points out, as will be more fully discussed under the heading "An Airport and Its Planning", the time required for the planning and construction of an airport, in the opinion of the Commission, is from 6 to 10 years. Accordingly, if a decision is now made to proceed with the Pickering Airport, the opening year of the Pickering Airport will be shortly before or shortly after Malton has reached its ultimate capacity.



## 4. Ground Access to Airports

The Commission heard evidence, (from the Ministry of Transport, Canada, personnel but no evidence from the Province of Ontario or Municipal personnel)<sup>1</sup> although not complete evidence, as to forecast of ground trips to and from the Toronto Airport system for the years 1980 and 2000. The evidence was incomplete in that there was no forecast as to the number of airport trips by well-wishers, that is trips by people who travel to an airport to say farewell to a friend, or by greeters, that is trips by people who travel to an airport to welcome a friend, or trips for air cargo purposes, or trips between the present Malton Airport and the proposed Pickering Airport. However, the Commission did receive forecasts as to the number of trips to and from the Toronto Airport system by air passengers, employees, sightseers, by people on business, and by an unidentified class called, "other persons".

The forecast involved a variety of assumptions such as the level of activity at each airport, changes in the efficiency of the airport workers, forecasts in population distribution and employment opportunities in the area. It was emphasized in the testimony that the forecast of trips in the Toronto Airport system was a preliminary estimate only and that continued study will be required.

In preparing the forecast, estimates were made by travel direction, to and from the airport, for an average summer day and design hour. The average summer day was defined as representing a typical summer day activity at the airport during the months of July, August and September. The design hour was defined as an

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<sup>1</sup> This matter is more fully mentioned under ground access to Pickering, *infra*.

hour of a summer day, for analysis purposes, which is higher than the average volume and which will only be exceeded a few days of the summer. The design hour which was chosen was 4:30 p.m. to 5:30 p.m. as this hour would coincide with general commuter and recreation travel in the region.

For the year 1980, the forecasts were based upon vehicular trips due to the fact that realistically the motor vehicle would be the chief means of transportation. The forecast made for the year 2000 was based upon person trips as opposed to any specific mode of transportation due to the fact that no prediction as to the mode or modes of transportation that will then be available can now be made. The forecast made for the year 2000, while dealing with the entire Toronto air transportation system, made an apportionment of the trips between Malton and Pickering on the premise that Pickering would be open and would serve all flight sectors, including necessary connecting trans-border and domestic short-haul sectors, while Malton would be confined to serving domestic and trans-border short-haul sectors. For an understanding of the magnitude of the problem, as indicated by the forecast, the Commission now sets out the forecast for 1971, 1980 and 2000. The Commission refers to the forecast for the year 1971 by reason of the fact that the 1971 figures do not represent the actual data for that year but are synthesized from statistical data.

	<u>1971</u>	<u>1980</u>	<u>2000</u>		
			<u>Total</u> <sup>1</sup>	<u>P</u> <sup>1</sup>	<u>M</u> <sup>1</sup>
Average summer day, 2-way person trips	38,000		309,000	243,000	66,000
Design hour 1-way trip from airport	2,400	5,750	20,600	17,100	3,500
	(Vehicular Trips)		(Person Trips)		

<sup>1</sup> For the year 2000, the total represents the total person trips for the entire Toronto Metroplex air transportation system, "P" represents the Pickering trips and "M" represents the Malton trips.



It is estimated that in 1971, 95% of all the trips to and from the airport originated or terminated in the Toronto Metroplex. It is estimated that in the year 2000, 80% of all the passenger trips to and from the Toronto Airport system will originate or terminate in the Toronto Metroplex, and that 95% of all other trips to and from the airport system will originate and terminate in the Toronto Metroplex. The forecast represents a 1100% growth factor in passenger trips to and from the airport system in the year 2000 over the 1971 estimate of trips. This is equivalent to 5 trips per 1,000 population in the Toronto Metroplex in 1971 and 36 trips per 1,000 in the Toronto Metroplex in the year 2000. The forecast represents an 800% increase in trips to and from the airport in the year 2000 over the year 1971, when the forecast of other categories of trips were averaged with the forecast of passenger trips. It should be remembered that the forecasts do not include trips by well-wishers, greeters, cargo trips and inter-airport trips.

Because, as stated, the Commission was not assisted, in so far as the Province of Ontario and Municipal authorities were concerned, with direct evidence upon this problem of ground access, the Commission of its own volition has sought to identify some of the problems.

The Commission, while not professing to have any proficiency in designing highways or access services to airports, or to solve the general ground transportation problems in the Toronto Metroplex area, does for the purpose of this Report indicate the magnitude of the problems, and the magnitude of the solutions, that will have to be adopted to solve these transportation problems.

### **MALTON (SPECIFIC COMMENTS)**

In so far as Malton is concerned, there was evidence that changes have taken place in respect to proposed highways mentioned in previous documents. In some cases, planned highways have been abandoned. In other cases, there are proposed changes

in the alignment of the highways from proposed alignments in the earlier documents, and there has been no resolution of the question of providing access from those highways to Malton. In the earlier documents, provision was made for an interchange on King's Highway 401 at Dixie Road in order to provide access to the west side of the airport. In the fall of 1973, the Province of Ontario advised the Ministry of Transport, Canada, that it would not permit an interchange at that location as it would be too disruptive to the regional highway system.

There was evidence adduced before the Commission that the highway system in the Malton area, at present, is at capacity. However, planned highway construction, as far as it could be ascertained, will provide sufficient capacity to 1980. It is doubtful whether the existing highway system together with the planned construction to 1980, will be adequate to meet both regional and airport demands to the year 1984 if Malton continues to be the only airport serving the Toronto Metroplex.

The adequacy of highway capacity is a most significant consideration at least until the year 1984, as it is generally recognized that the only mode of ground access to Malton will be by way of private and public automobiles and bus transportation.

In considering the question of ground access to Malton, it is not enough to only look at the highways around Malton. People will have to travel to Malton from the eastern environs of the Toronto Metroplex as well as from the centre of the Toronto Metroplex. The only north-south express routes connecting the southern east-west expressway, which is comprised of the Frederick G. Gardner Expressway and the Queen Elizabeth Way, and the northern east-west expressway, King's Highway 401, are the Don Valley Parkway and King's Highway 427. There is a substantial travel distance between these two north-south express routes. The lack of an additional north-south express automobile route between the two existing north-south express routes is significant when one considers the number of forecasted trips to the airport and the fact that these routes also serve as general commuter and recreation travel routes. If relief is not provided to the existing north-south express routes by means of another north-south express route, the existing north-south express routes will probably not have the capacity to meet required demand.

The Commission is of the opinion that Malton can be expanded within its present boundaries to meet all reasonable needs, having regard to ground access to the year 1980, provided present planned highway construction is completed. It is improbable that the existing highways and planned construction to 1980, will provide adequate ground access to Malton to the year 1984. The question of adequate ground access to Malton to the year 1984 will depend, in part, upon a satisfactory resolution between the Government of Canada and the Province of Ontario to the question of providing a means of access from King's Highway 401 to the western boundary of the airport lands and also upon the construction of additional highways and expressways.

### **PICKERING (GENERAL COMMENTS)**

Exhibits 535, 541 and 543 set out various road access to the proposed new international airport at Pickering which will be part of a whole grid system of roads, not just to service the airport, but to accommodate the proposed and planned development of the whole northeast quadrant of the Toronto Metroplex area. In addition, the Commission has also had the opportunity of seeing on the ground some of the problems. As a result, the Commission is of the view that it will be necessary, in view of the forecasts, (the numbers which will have to be accommodated) that every available mode of transport will have to be utilized.

The Commission is also of the view that it would be a grave mistake to think that one form of transportation will be adequate to satisfy the great demand for ground transportation in this northeast quadrant of the Toronto Metroplex area.

With that in mind, the Commission is of the view that not only a network of roads should be undertaken immediately, but also that rail transport should be extended and developed; that a particular type of bus service should be established; that a rapid transit study should immediately be undertaken which could recommend appropriate undertaking within 12 months, and that a policy regarding taxis and other delivery to the airport should be adopted and implemented.

As stated, the Province of Ontario did not, (although invited to do so) adduce evidence before this Commission. The Commission

was advised, however, that the Province of Ontario had representatives in attendance at the Hearings and particularly when the Public Hearings were held in respect to the specific matter of road access or ground access to the proposed international airport at Pickering. A letter was delivered and read into the record from Mr. A.T.C. McNab, then Deputy Minister of Transportation and Communications, the gist of which was that the Province of Ontario has worked in close cooperation with the Ministry of Transport, Canada, in developing the studies and reports which were submitted in evidence by the Ministry of Transport, Canada, to the Commission. In addition, the Province of Ontario is a party with the Government of Canada to a document which has been referred to as the Annex of Understanding and is document A-7 of Exhibit V, Appendix "A" of Government Summary, References and Appendices in Exhibit 7. The essence of the position of the Province of Ontario at this time appears to be that until the Government of Canada determines the precise role and the date of implementing that role for the Pickering Airport, the Province of Ontario is unable to be more precise in terms of a programme or plan in relation to ground access. The representations indicated that as soon as the Government of Canada has made this determination, the Province of Ontario is more than willing to cooperate and assist, and presumably this is within the terms of the Annex of Understanding.

Because of the time required to obtain rights-of-way, to undertake research and development and construction, the Commission is of the view that considerable coordinated effort involving Federal and Provincial legislative action must be undertaken immediately. This should involve the establishment of an Airport Authority, which subject is discussed more fully elsewhere in this Report. Even if that was done immediately, there is serious doubt in the mind of the Commission whether the target of 1980 can be met.

The Commission is of the opinion, based upon experience in Europe and the United States, that Pickering Airport, if built, should not be opened for use unless and until the whole access network is in place and operating. This the Commission believes to be of cardinal significance.

In addition to the problems involved in moving passengers and cargo is the problem of transporting employees who will be



employed at the airport and at surrounding commercial and industrial establishments. The airport employees alone are estimated by the year 2000 to be something in the order of 50,000 people. On top of that, the Province of Ontario has discussed publicly the creation of a city known as Cedarwood; Cedarwood has been mentioned in evidence before this Commission as the North Pickering Community. Various figures have been given as to the number of persons involved, up to something in the order of 200,000 residents. When it is realized that many of these persons will also have to commute back and forth, the problem in terms of the numbers alone is staggering. The Commission feels it is worth noting that the credible evidence from all sources, respecting forecasts heretofore made, had one factor in common, namely, they all fell short of what developed to be actual numbers involved. A number of airports were cited as examples where expansion of facilities was required within a number of years and in some cases within months of the opening of the airport. It is therefore absolutely vital, in the Commission's opinion, that the forecasts be looked at; be treated seriously and, in fact, be thought of in terms of planning, as being on the low side, despite any other opinions to the contrary.

The fundamental problem obtaining in a number of other important communities where planning of access to airports, and general road access to service the whole economic community is utterly inadequate, is that it is now impossible and too late to rectify the problem. As a result, these communities, with shrinking economic activity in the years ahead may become progressively unviable and from an environmental and social point of view, will become undesirable.

At present, there is time in the Toronto Metroplex area to adequately plan and build for the future, so that this area will not be confronted with these problems and difficulties. However, aggressive steps must immediately be taken.

The Commission has noted that the Toronto Metroplex area is the fastest growing community on the North American Continent and is aware that people are attracted to it. The people can be accommodated if adequate planning and implementation of such planning is commenced now.



Access to a new Pickering Airport can be properly planned and built if action is taken now.

### **PICKERING (SPECIFIC PROBLEMS)**

Some of the problems of access to the proposed site for a new airport at Pickering are now discussed. The proposed airport lies in two regions, The Regional Municipality of York and The Regional Municipality of Durham. There is no overall municipal jurisdiction governing these two regions. To compound the problem, there are a number of different semi-autonomous municipalities. In addition, the Province of Ontario, which has an overriding jurisdiction, does not appear to have asserted its jurisdiction in terms of active planning.

Thus, the community, of which the proposed airport may be but a part, has immense and complex problems associated with ground access.

The site severs certain north-south and east-west roads which presently exist in Durham. It also severs the boundary road between Durham and York (which road is under the jurisdiction of York). Further, York Region road 25, which is a proposed connection to the Durham-York boundary, will be "dead-ended" on the west side of the site.

This site is surrounded by the communities of Stouffville, Claremont, Sandford, Mount Albert, Markham, Locust Hill, Whitchurch, Green River, Pickering, Ajax and Scarborough, and the proposed North Pickering Community.

The site is also in the path of the one-time proposed direct route of Metro-East Expressway from Scarborough to the east side of Lake Simcoe, the Kawarthas and Muskoka.

The proposed north-south King's Highway 404 would lie west of the site. It is proposed that basically this highway will utilize the existing York Regional right-of-ways from Newmarket to Lake Simcoe. King's Highway 404, as it is presently conceived, is essentially an extension northerly of the Don Valley Parkway to Newmarket and Lake Simcoe, and is limited in its capacity by the capacity of the Don Valley Parkway, and is therefore not an alternative to the proposed Metro-East Expressway.

In sum, the problem of the access to the proposed airport site must be considered in light of the evidence detailed elsewhere in

this Report, which indicates that by far the majority of the passengers going to and from the proposed airport will originate and terminate in the present Toronto Metro area.

The roads presently serving the site of the proposed new International Airport at Pickering are essentially York and Durham Regional roads supplemented by local roads. They are absolutely inadequate at the present time to cope with even the initial traffic to any proposed new airport, not to mention the traffic which will be generated by the new North Pickering Community.

In this connection, it should be noted that although both are still only two lane roads, the Durham roads in the area are generally better developed than the roads in York. The significance of this is great because, as stated, most of the passengers coming to and from the proposed airport will have to travel over the roads in the Region of York.

The local road system in both York and Durham is one of narrow gravel roads, poorly graded and inadequate for anything but local services.

There are no King's Highway system roads directly serving the proposed new airport site except King's Highway No. 7 which runs along the southern boundary in this area.

King's Highway No. 7 is basically a two lane east-west highway providing the traditional services as a connector for communities along its route, as for example, Woodbridge, Thornhill, Unionville, Green River, Brougham, Brooklyn, Manchester, Beaverton, Lindsay, Peterborough. Heavy recreational traffic uses King's Highway No. 7 from the Toronto Metroplex area to the recreational areas to the northeast although the road was not designed for such purpose.

King's Highway 401 is about six miles south of King's Highway No. 7, runs in an east-west direction, and is the main east-west expressway. The present and projected expansion of this highway will probably not even meet present and projected normal requirements.

Proposed King's Highway 407 is in a design stage only. It is proposed that it will parallel King's Highway No. 7 south of it. The apparent original purpose of King's Highway 407 was that it would serve as an additional east-west expressway to take through traffic

from King's Highway No. 7 and relieve pressure on King's Highway 401.

King's Highway No. 12, a north-south highway, is too far east of the proposed site to provide any significant service to the site except perhaps for some airport traffic which might originate and terminate at Whitby or eastwards. It has two lanes only.

King's Highway No. 48, a north-south highway through the former Town of Markham, is essentially a two-lane regional service road serving the Scarborough and Beaverton areas and the traffic moving from Markham to Lake Simcoe. It cannot be developed into a major artery or expressway because of existing and proposed land-use patterns.

King's Highway No. 11, and King's Highway 400 provide no service to the proposed site. If York Region Maple road No. 25 were extended, as was proposed, to the boundary of York-Durham, it would provide a 20 mile long lowspeed moderate capacity route to the Pickering site from King's Highway 400.

There is no existing major highway to the proposed airport site capable of carrying traffic volumes which can be expected to travel to such site.

The road financing in the area at the present time is as follows:

1. **Local**

The local municipalities levy direct taxation on real property. On projects approved by the Ministry of Transportation and Communications, Ontario, the local municipality receives a Province of Ontario subsidy of 50% on roads and 80% on bridges.

2. **Regional (York and Durham)**

The region raises its funds by apportioning its costs against member municipalities according to equalized assessments. Province of Ontario subsidies, up to 75% on a sliding scale, are paid on Provincially approved bridges and projects.

3. **Province of Ontario**

The Province receives its funds from taxation and spends according to its own criteria as determined from time to time.

If the airport is built on the proposed site, there will probably be federal grants in lieu of taxes in respect to buildings. There will

also be grants in lieu of taxes for lessees occupying certain buildings of the airport.

This makes an equitable distribution of revenues to the regions concerned very difficult. The grant of monies for airport buildings would be paid to the Region of Durham because the bulk of the real property of the proposed airport site is located in such region. However, since most of the airport traffic and a substantial part of the traffic from the new North Pickering Community would be to and from Metropolitan Toronto, most of the road construction to accommodate such traffic would be done in and by the Region of York, which, without a special arrangement, would get practically none of the grants in lieu of taxes.

This is an additional reason for the establishment of an Airport Authority whereby there can be an equitable distribution of Federal and Provincial grants in lieu of taxes to the respective municipalities, which will have the burden of the costs and responsibility of building and maintaining certain access roads.

It would appear to the Commission that first priority should be given to the construction of a ring road or a perimeter road around the proposed airport site. This should be a multi-lane two-way expressway that would serve roads all around the airport site and intercept the existing roadways which will be severed by the airport. This will ensure the continuance of communications between the centres now located both north and south of the proposed airport site.

The proposed Metro expressway should be incorporated as a direct connection between King's Highway 401 and King's Highway No. 7 and the proposed King's Highway 407 to the site via the perimeter expressway. It then could be continued northerly and easterly and would provide access to the proposed airport, and to the North Pickering Community, and to the east for persons from Muskoka and North Bay areas, and also the Kawarthas and other easterly areas.

In making this suggestion, it should be emphasized that whatever is done it is absolutely essential that a new major east-west highway and a new major north-south highway be established to accommodate the movements of people from the downtown Toronto Metro core and the Toronto western Metroplex areas to the airport.

A suggested schematic plan of highways for airport access appears as Appendix 14 to this Report.

In making these suggestions regarding roads, the Commission is not unmindful that it is dealing only with the conventional method of moving people and goods; that is by highways. It does not really believe that there will be any astounding change in the development of any mass transportation systems within sufficient time to be of any practical use to provide access to and from the proposed new Pickering airport, or the proposed new North Pickering Community. Such additions to the transport system will include for example, Ontario Rail Go System, the proposed Go-Urban System on new elevated or semi-elevated track using high or moderately high speed magnetic levitation and TRAC trains.

The Commission is of the view that these new modes as and when established will be only complementary to the contemporary oriented systems for the next 30 years.

It has been the experience in Canada, and elsewhere in the world, where government controlled public transit systems have been established that the individual is reluctant to abandon the convenience afforded by his own automobile, in favour of a government controlled public transit system. Unless and until the latter is more convenient, more comfortable, more satisfactory to such individual, he is not likely to abandon the use of his private automobile for local purposes including transportation to the airport. In any event, at the present time and in the foreseeable future, there is no reason why he should abandon his private automobile because it is improbable that any public transit system other than bus will be provided. There is no reason why public highways cannot be built in the Toronto Metroplex area to satisfy public requirements, and also be compatible with environmental requirements.

In sum, the Commission is of the view that a major construction of highways must be immediately undertaken. This necessity arises not just because ground access to and from the proposed Pickering airport site must be provided to make the airport operation a success, but equally important is the need to provide access to the new proposed North Pickering Community, and the accomplishment of the objective of the Province of Ontario, which is to



create growth to the east of Toronto, thereby reversing the traditional and usual trend in most communities to grow to the west. This ground access to the proposed Pickering airport should not be an exclusive one for airport purposes only because the costs would be uneconomic, but instead, it should be integrated with access for all purposes from the Metroplex area to the east. The details of how this should be accomplished will have to be worked out between the Federal and Provincial Governments. The Annex of Understanding contemplates this.

The Commission reiterates the urgency of providing access, and repeats its view that the proposed Pickering airport should not be opened unless and until adequate reliable access to the airport is in place and operating, as access is fundamental and an inseparable component of an airport system.

#### **BETWEEN MALTON AND PICKERING**

It is absolutely essential that a four (4) lane, two-way highway be planned and built immediately between Malton and Pickering.

Further details of suggestions are contained elsewhere in this Report under the heading of "An Airport and Its Planning."



## **5. Runway Capacity**

The number of runways at an airport and the actual ability of those runways to receive, move and discharge aircraft, is of vital concern in determining the adequacy of the airport. If existing runways are incapable of meeting demand, problems are created on both the ground and in the air. On the ground, the inadequacy of runway capacity leads to a backup of aircraft on the taxi-ways, and if there is insufficient space for the queuing of aircraft on the taxi-ways, the aircraft are backed-up to parking positions. In the air, arriving aircraft cannot land, so they must be stacked, or held, in the airspace above and around the airport, which leads to a congestion of the airspace of the airport, untenable delays, and eventually a saturation of the airport's airspace. In addition, this results in an undue economic penalty to the air transportation system. To prevent these problems, new runways must be constructed or a diminution of traffic results. If new runways cannot be constructed within the present boundaries of the airport, the airport boundaries will have to be expanded, but if this is not possible, an additional airport will have to be established to serve the community. Notwithstanding that the airspace around the airport can accommodate more aircraft than are presently flying into the airport, or that the ground access to the airport is capable of handling many more trips to and from the airport, or that the present terminals, or future terminals to be constructed on the site, can handle many more passengers than at the present, an airport without sufficient runway capacity to meet present and anticipated future demand, is at capacity.

## **THE FORECASTING OF AIRCRAFT MOVEMENTS**

Aircraft movements result from the number of flights that originate, terminate and make stops at an airport in the course of their journey. To determine the ability of existing runways to handle such aircraft movements in the future, there must be a prediction or forecast of the future peak hour scheduled demand which will be created by aircraft flying into and out of the airport. Scheduled peak hour demand represents the number of aircraft movements that can be expected in the peak hour of each day of the busiest season of the year if all flights adhere to their scheduled times. The scheduled peak hour for aircraft movements is not necessarily the same as the scheduled peak hour for passengers due to the various sizes of aircraft. The arrival peak hour and departure peak hour are not usually the same. In order to determine the scheduled peak hour for aircraft movements, the Ministry of Transport, Canada, first determined the arrival peak hour and the departure peak hour. In order to arrive at the arrival peak hour, the Ministry of Transport, Canada, computed the number of flights that occurred during each hour of the day of the busiest season of the year (July, August and September) and averaged the result to obtain the scheduled aircraft arrival peak hour. The scheduled peak hour for aircraft departures was determined similarly. The resulting figures were combined to produce the scheduled peak hour for aircraft movement.

In order to forecast the number of aircraft movements in the scheduled arrival peak hour, and the scheduled departure peak hour for the period to 1980, 1990 and 2000, various predictions and assumptions had to be made in respect to many factors including; an estimate of future schedules in the international, in the long-haul and short-haul domestic and trans-border and charter flights sectors, an estimate of the mix of the aircraft fleet which will be flying, including the maximum passenger and cargo capacities of such aircraft, an estimate of the number of passengers and tonnage which will be carried by the aircraft in relation to the maximum capacity of the aircraft, and the degree of flexibility in spreading out the peak movements to other parts of the day.

It should be noted that in making its forecasts, the Ministry of Transport, Canada, predicted that an increase in aircraft

movements will be slower than the predicted growth of passengers and cargo due to an anticipated increase in the use of larger aircraft.

During the period 1968 to 1972, the Ministry of Transport, Canada, made various forecasts as to the number of aircraft movements in the scheduled peak hour. The earlier forecasts were revised in April, 1973. Prior to 1973, it was estimated that 10% of the aircraft flying in the international, long-haul domestic and trans-border sectors would have stop-overs at short distances before reaching their ultimate destinations. The new forecast estimates that stop-overs at short distances by aircraft flying in those sectors will be reduced to 5% by 1982 and will then remain constant to the year 2000. The prediction that there would be a reduction in the number of stop-overs in the international and long-haul domestic and trans-border sectors was based upon the fact that present experience and trends indicated a greater portion of total passenger occupancy of the aircraft at Toronto, where the flight originates and terminates, than in the past. With an increase in passenger occupancy at the point of origin of a flight, there would be no need for the aircraft to make a stop along the way to pick-up additional passengers, or to force passengers to change aircraft at another airport. As a consequence of an increase in the number of direct flights in the international, long-haul domestic and trans-border sectors, there will be a greater number of domestic flights to Toronto where the long-haul flight originates in order to permit passengers from these flights to connect with a long-haul flight or direct flight.

A summary of the forecasts of the Ministry of Transport, Canada, as to aircraft movements, exclusive of general aviation movements, is as follows:

	<u>1980</u>	<u>1982</u>	<u>1990</u>	<u>2000</u>
Total annual movements of passenger and freighter aircraft	166,730		228,300	371,200



**Peak Hour**

	<u>1982</u>	<u>1990</u>	<u>2000</u>
Arrival aircraft	19	28	44
Departure aircraft	31	39	58
Total scheduled peak hour movements	50	67	102

The forecast of scheduled peak hour demand must be considered with the factors which limit the use of runways in determining whether the existing runways will be able to meet future demand. Some of the factors limiting the use of runways are weather and atmospheric conditions, the mix of the aircraft fleet flying into and out of the airport, whether the aircraft are flying by visual flight rules or instrument flight rules, the extent of ground separation between existing runways and any future runways that may be constructed, the number of exit-ways from the runways to the taxiways, curfews, whether a preferential system of runway utilization is employed as a means of noise reduction, whether any noise reduction flight procedure is in force which has the effect of requiring an aircraft to fly at less than maximum weight, the anticipated hourly and daily distribution of traffic, air traffic control rules and regulations governing the arrival and departure of aircraft, whether the air traffic controller maintains sequencing manually or is assisted by computer aids and wake turbulence.

**CURFEWS**

Curfews imposed at an airport where the flight originates, and curfews imposed at the airport where the flight terminates, restrict flexibility in scheduling in that the flight must commence outside the curfew period of the airport where it originates, and land outside the curfew period of the airport where it terminates. Both the departure and arrival times must be acceptable to the travelling public. A flight from Malton to London's Heathrow Airport must originate at Malton between the hours of 1800 hours and 2300 hours in order to land at Heathrow between 0600 hours and 2300 hours, and a flight departing from Heathrow between 0800 hours and 1800 hours must land at Malton between 1100 hours and 2100 hours. Even without the curfew, these time restrictions would still

apply as departures or arrivals during other time periods would lead to either an inconvenient arrival time, or an inconvenient departure time for most passengers at one end of the trip.

## **SCHEDULES**

An airline does not prepare its schedules in a vacuum. It must prepare its schedules to meet the demands of passengers to arrive or depart from an airport at a particular time of the day. In addition, the airline wishes to achieve the greatest utilization possible for each aircraft and must plan its schedules accordingly. The airline must also consider schedules offered by competing airlines. Accordingly, an airline has little flexibility when preparing its schedules.

While there is little flexibility to spread out aircraft movements from the peak hour, in so far as scheduled passenger flights are concerned, there is a greater degree of flexibility in so far as charter and freighter aircraft movements are concerned. The ability to shift charter aircraft movements to other parts of the day is basically only limited by curfews. During the summer months at Malton, there is a scheduling committee composed of the charter aircraft operators. This committee develops schedules for arrival and departures of charter aircraft in order to relieve pressure on the airport during the scheduled peak hour.

Arrivals and departures for freighter aircraft movements can be moved out of the peak hour to other parts of the day.

In preparing its forecast of scheduled peak hour aircraft movements, the Ministry of Transport, Canada, did take into consideration that movements by charter aircraft and freighter aircraft would basically take place outside the scheduled peak hour.

## **REDUCTION OF RUNWAY UTILIZATION AS RESULT OF NOISE ABATEMENT REQUIREMENTS**

As mentioned under the discussion of noise disturbance from aircraft operations, some airports have established monitoring sites for each departure route to ensure that noise levels at the first major built up area overflown do not exceed a specified limit. As a result, some of the larger and noisier aircraft are unable to use certain

runways. In addition, a large aircraft in many instances is required to reduce its total capacity in order to meet the specified limit. This in turn will result in two aircraft having to do the work of one aircraft.

### **PREFERENTIAL SYSTEM OF RUNWAY UTILIZATION FOR NOISE DISTURBANCE**

The experience at Malton by the employment of a preferential system of runway utilization for noise abatement purposes reduces the number of movements on a runway, per hour, from 34 movements to about 20 movements in cases where the aircraft flying into and out of the airport consist of various sizes of jet aircraft, according to the evidence on behalf of the Ministry of Transport, Canada.

### **FLEET MIX**

Where the aircraft fleet mix flying into and out of an airport includes heavy jets, the capacity of a runway is reduced by reason of the separation required between a heavier jet and a lighter jet both on arrival and departure. The percentage of runway capacity reduces rapidly as the percentage of heavy jets in the fleet increases. About a 50% higher runway occupancy time is required by a heavy jet over that of a smaller jet. A fleet composed of 20% heavy jets will increase delay values as much as 80% over a fleet without heavy jets. Heavy jet departures cause a two minute wait upon the next non-heavy jet departure, under present air traffic control procedures.

### **INSTRUMENT FLIGHT RULES**

Aircraft are flown either under visual flight rules or instrument flight rules. Under instrument flight rule procedures, a runway must be suitably equipped with visual and non-visual aids providing adequate directional guidance intended for operation down to a specified decision height and down to a specified runway visual range. Where aircraft are required to operate under instrument flight rule procedures, there is a greater safety factor than in the

case of operation under visual flight rules. However, flight operations under instrument flight rule procedures reduce the capacity of a runway as compared to operations under visual flight procedures as the separation standards between aircraft are greater under IFR than VFR procedures.

Where the operations of a runway are governed by instrument flight rules, an arriving aircraft may make a complete instrument landing, or if weather conditions permit, a pilot of an arriving aircraft may change from IF rules to VF rules subject to certain conditions. The pilot must be able to see the runway and there must be a clear visibility for at least 3 miles. If both these conditions do not exist, a pilot must make an instrument landing.

The evidence adduced before the Commission by the Ministry of Transport, Canada, was that instrument landing to touchdown is a requirement at Malton for all commercial aircraft, regardless of weather conditions.

## **WEATHER CONDITIONS AND ATMOSPHERIC CONDITIONS**

Prevailing weather conditions have a direct effect on the operation of runways. On an hour by hour basis, the use of a specific runway is dictated by prevailing cross-wind and tail-wind conditions on such runway. Accordingly, it may not be possible to use all runways of an airport at the same time.

## **HIGH SPEED EXITS**

High speed exits have the potential to reduce average runway occupancy time by arriving aircraft after they have touched down. Exit-ways from the runways to the taxi-ways are provided at various distances along the runways, so that if the arriving aircraft misses the first exit-way after touchdown, it only has to travel a short distance to the next exit-way instead of travelling to the end of the runway in order to exit from the runway. The angle of an exit-way is designed in such a manner as to permit the aircraft, in theory, to exit at a speed of 60 miles per hour. Rain, snow, ice and winds will reduce the speed at which an aircraft leaves a runway from that of the optimum speed.

## **WAKE TURBULENCE**

Every airplane generates a wake while in flight which is a pair of counter rotating vortices trailing from the wing tips. The vortex generation commences with rotation when the nose wheel of the aircraft lifts off the ground and ends when the nose wheel touches down on landing.

As aircraft became larger, the intensity of the vortices began to create a problem for smaller aircraft. Jumbo jets generate vortices with roll velocities exceeding the roll control capability of some aircraft. The turbulence generated within the vortices can damage aircraft components and equipment and cause loss of control if encountered at close range.

The strength of the vortex is governed primarily by the weight, speed and shape of the wing of the generating aircraft. The strength of the vortex increases with increases in weight and span loading of the aircraft. The tangential velocities of a vortex can be as much as ninety knots. The diameter of the vortex core ranges from 25 to 50 feet, but the field of influence is greater. The vortices may stay close together until dissipation.

The vortices from heavy jets commence to sink immediately at about 400 to 500 feet per minute. They tend to level off at about 800 to 900 feet below the generating aircraft's flight path. The strength of the vortex diminishes with time and distance behind the generating aircraft. Atmospheric turbulence hastens break up. However, residual choppiness remains after vortex break up.

When the vortices sink toward the ground, they tend to move laterally outward at a speed of about five knots. A cross-wind component will decrease the lateral movement of the up-wind vortex and increase the movement of the down-wind vortex. This may result in the up-wind vortex remaining in the runway touch-down zone or hasten the drift of the down-wind vortex towards a parallel runway. A tail wind condition can move the vortices of a preceding landing aircraft down the runway.

Wake turbulence is invisible and the only way it can be avoided is by imposing separation standards.

A separation of five nautical miles is required between a heavy jet and an aircraft vectored directly behind it at the same altitude or within 1,000 feet. This has the effect of increasing the time



interval between arriving aircraft. It should be noted that the American Air Line Pilots Association is advocating an increase in the separation distance between a heavy jet and a following jet from five nautical miles to eight nautical miles.

An arriving aircraft should touch down on the runway before reaching the rotation point of a departing heavy jet to avoid the wake turbulence which is created once the nose wheel of the departing aircraft lifts off the ground.

In order to avoid the wake turbulence generated by the arriving aircraft, which only ends when the nose wheel of the arriving aircraft touches down on the runway, a departing aircraft must take off from the runway with rotation beyond the landing point of a heavy jet.

After a heavy jet departs, a two minute separation is required before another aircraft departs on the same runway, or on a parallel runway located at 2,500 feet or less.

For planning purposes a runway has a capacity, under instrument flight rule conditions, of 40 aircraft movements per hour. However, wake turbulence has the effect of reducing the number of aircraft movements for planning purposes from 40 to 34.

Research is presently being conducted into the development of devices for the detection of wake turbulence. However, there is no foreseeable technology which will enable wake vortices to be broken up and dissipated. Wake turbulence is a limitation with which the air transportation system will have to live for the foreseeable future.

## **RUNWAY SEPARATION**

The evidence adduced before the Commission by the Ministry of Transport, Canada, is that a separation of 4,300 feet, or more, between two parallel runways permits each runway to be operated independent of the other. The FAA, of the United States, issued a policy statement, September 1, 1974, that a separation of 4,300 feet between parallel runways permits each runway to operate independent of each other. This policy statement has been accepted by the American Air Line Pilots Association subject to certain conditions. Thus, if a single runway under IFR conditions has a capacity of 34 movements per hour, having regard to wake turbulence, the construction of another runway parallel to the existing runway, and

separated from the existing runway by 4,300 feet, or more, will increase total runway capacity to 68 movements per hour or by 100%.

Where movements on one runway are affected by movements on the other runway, such as two intersecting runways, the total capacity of 68 movements per hour achieved by two independent runways may be reduced to 46 or to 57 movements per hour, depending upon circumstances.

The restriction of the use of one runway of a parallel set of runways to aircraft having a weight greater than 300,000 pounds, and the limitation of the use of the other runway to aircraft having a weight less than 300,000 pounds, would have a marginal effect in increasing the total capacity of the two runways. But, such a scheme of utilization would create a sequencing problem for air traffic control as the aircraft using one runway would cross the flight path of the aircraft using the other runway. Under such circumstances, air traffic control should issue a cautionary as to potential wake turbulence. The two minute separation which is imposed between departing aircraft on independent runways is designed, so that when the following aircraft crosses the flight path of the preceding aircraft, it can do so without regard to wake turbulence. If the following aircraft crosses the flight path of the preceding aircraft within an interval of less than two minutes, which occurs in the case of departures from intersecting runways, there is a potential wake turbulence hazard.

### **DUAL LANE RUNWAYS**

It was advanced in evidence before the Commission that the runway capacity of an airport can be increased by dual lane runways.

Dual lane runways are defined as two parallel runways separated at 2,500 feet or less from centre line to centre line of each runway. The separation distance can be as little as 750 feet.

The dual lane runway concept involves the construction of another runway, parallel to an existing runway, which together with an existing runway forms a set of dual lane runways. In addition to the construction of the parallel runway, a storage taxiway should also be constructed to hold two aircraft, ready for departure, between the runways in order to maintain a high level of

operation. Otherwise, the potential increase in flow rate by this concept will fall off by approximately 15%. No additional capacity is attained if the storage taxi-way can accommodate more than two aircraft.

Under the dual lane runway concept, it is recommended that the outer runway be used for arriving aircraft, and the inner runway be used for departing aircraft, due to the fact that the inner runway has a substantially higher missed approach potential than the outer runway by reason of the time required on the inner runway to permit crossing operations from the outer runway. The runways should have at least three well placed exit-ways to reduce occupancy time by arriving aircraft. Runway exits which permit exit speeds of 60 miles per hour generally provide 11% increase in flow rate over exiting at conventional speeds. However, the real flow rate for departures on the inner runway is reduced as departures must be held, when possible, to permit the arriving aircraft on the outer runway to cross the inner runway without stopping.

Computer simulations have shown that dual lane runways can accommodate a range of IFR arrival demand rates from 30 to 38 operations an hour depending on actual site conditions such as aircraft mix, air traffic control environment, runway/taxi-way configuration and arrival demand scheduling. However, current dual lane runways are being operated at an IFR arrival rate of approximately 30 aircraft per hour where the fleet mix consists of 20% heavy jets (747,DC-10 L-1011) 40% large jets (707,DC-8) 30% medium jets (727,DC-9) and 10% general aviation aircraft. Demand rates beyond this range under IFR rules require fully independent parallel runways for arrivals (that is a separation of at least 4,300 feet between runways). It should be noted that any increase in the number of heavy jets composing the fleet mix reduces the arrival rate of the runway. As the percentage of heavy jets increase, the time in the system for each departing aircraft mounts rapidly. It should also be noted that heavy jets have about 50% higher runway occupancy time than other jets. This is also a factor in reducing the number of runway operations.

The underlying premise of the dual lane runway concept as a means for increasing runway capacity is that movements will proceed on a precision basis. Any small problem or deviation from the expected will result in many other problems developing very

quickly. If a departing aircraft takes longer than expected to begin departure roll, the air traffic controller must issue instructions to an approaching arrival aircraft to do pass stretching or he must instruct the departing aircraft to get off the runway. As a consequence, other jobs such as clearance for approaching aircraft to the other parallel runway and authorization to an aircraft that has arrived on the outer runway to cross over the inner runway must wait. As result, the flow rate in the system will be reduced until a normal operation flow can be re-established. Another problem is created by missed approaches. In practice, an air traffic controller can handle two to four missed approaches within an hour without any material effect on his work load. However, if he is required to handle more missed approaches per hour, his work load will be increased and thus the flow rate of the runway will be reduced.

The dual lane runway concept offers little or no increase in runway capacity in cases where an instrument landing is required to touchdown. The greatest increase in capacity under this concept is in cases where arriving aircraft are permitted to make a visual landing.

It should be noted that where parallel runways are separated at less than 2,500 feet, there may be a problem of wake turbulence due to the tendency of wake vortices, after sinking to the ground, to move laterally outward over the ground.

The Commission has a real concern for the risk to safety due to wake turbulence where parallel runways are separated at a distance of 2,500 feet or less. In addition, if a landing aircraft develops a flat tire, or some other control problem develops, the question arises as to how the aircraft is to be brought under control in time to avoid a collision with an aircraft in the adjacent storage taxi-way or waiting to take off on the inner runway when the total distance is only 2,500 feet or less.

### **RUNWAY CAPACITY AT MALTON**

The existing runways at Malton are:

- (a) Runway 14/32 which lies in a northwest-southeast direction is 11,050 feet in length;
- (b) Two parallel runways, runway 05L/23R and runway 05R/23L which are in a southwest and northeast direction. Runway 05L/23R is 10,500 feet in length



and runway 05R/23L is 9,500 feet in length. The runways are separated by a distance of 10,000 feet.

- (c) Runway 10/28 which is in an east-west direction and has a length of 4,500 feet. This runway intersects with runway 14/32 and runway 05L/23R. This runway is primarily used for general aviation.

All commercial aircraft flying into and out of Malton, as stated, are flown under instrument flight rule procedures. The aircraft fleet mix flying into and out of Malton consists of large jets, heavy jets, medium jets and general aviation aircraft. Under normal conditions, and having regard to the separation standards imposed by wake turbulence, the estimated capacity of runway 14/32 is 34 movements per hour and the estimated total capacity of the two parallel runways is 69 movements per hour. However, a preferential system of runway utilization for noise reduction purposes is employed at Malton which reduces the total capacity of the three runways to an estimated 59 movements per hour.

Excessive cross-winds on the parallel runways require runway 14/32 to be used exclusively 5% of the time on an annual basis. Marginal cross-winds on the parallel runways and air traffic control reasons make it desirable that runway 14/32 be used exclusively about 18% of the time on an annual basis. Part of the period that cross-winds dictate that runway 14/32 be used exclusively, or make it desirable that it be used exclusively, occurs in the scheduled peak hour.

It should be noted that wind velocity at Malton is less than 15 knots 80% of the time on an annual basis. Accordingly, wind velocity would not be a major factor in the break-up and dissipation of wake turbulence for at least 90% of the time. A low wind velocity would tend to keep the wake vortices along the runways.

Malton is presently at runway capacity when weather conditions dictate that runway 14/32 be used exclusively. Without an additional runway in the same direction, runway delay will become untenable.

The nearest that another runway could be constructed, at Malton, parallel to runway 14/32 would be 1,300 feet, having regard to present Ministry of Transport, Canada, separation standards centre line to centre line for parallel runways. In order to construct a parallel runway with this separation, the existing



airfield maintenance area, the remote receiving site and the control centre would have to be relocated. In addition, the existing general aviation area would have to be relocated in its entirety. Such changes would leave very little of the then unused land for possible future development.

In addition, such a parallel runway constructed at such a separation would only increase the capacity of runway 14/32 by about 10% having regard to separation standards imposed by IFR flight rules, mix of aircraft fleet and separation standards imposed by wake turbulence considerations. Even if such a runway were constructed, the new runway with existing runways, apart from weather conditions, would be inadequate to meet scheduled peak hour demand beyond the year 1985. As noted elsewhere in this report, runway 14/32 is the most noise sensitive runway of the three existing runways at Malton.

A runway parallel to runway 14/32 could be constructed at a distance of 4,400 feet west of runway 14/32. This would enable the two runways to be operated independently of each other and would permit the maximum possible future development of Malton. This is the maximum possible separation that can be achieved within the present existing boundaries of Malton. The runway would be 9,500 feet in length and would provide additional runway capacity to meet scheduled peak hour demand to the year 1990. To construct a runway with this separation, the culvert under runway 05L/23R would have to be relocated, and the existing terminal control radar, the ASR-5, would also have to be relocated. There is some doubt whether the ASR-5 can be relocated as studies on this aspect have not yet been completed. A fifth independent runway cannot be constructed at Malton within the present existing boundaries of the airport.

A new runway with a 4,400 foot separation from existing runway 14/32 would result in more of the Bramalea community and an increase in the areas of the Borough of Etobicoke being subjected to noise. It is estimated that at present, there is a total of 90,000 people in the communities around Malton living within 28 NEF to 30 NEF contours. It is estimated that even with all aircraft having the noise characteristics of a DC-10, which meets the requirements of FAR 36, there would be a total of 74,000 people, based on 1973 population, residing within the 28 NEF to 30 NEF

contours in 1985. It was also estimated, using the same assumptions, that there would be 95,000 people living within those contours in 1990.

The Commission concludes that the runways at Malton cannot be expanded, or reconfigured, within present boundaries of Malton, to meet all reasonable needs having regard to the number of people affected by disturbance from flight operations. Realistically, the Commission is of the opinion, as discussed under the heading "Noise Disturbance from Aircraft Operations", that the earliest probable date the entire aircraft fleet flying into and out of Malton will have the noise characteristics of a DC-10, which meets noise standards of FAR 36, will be about 1985. Under the circumstances, any expansion or reconfiguration now of the runways at Malton will result in an increase in the number of people affected by disturbance from flight operations to the year 1985. After the year 1985, there may be a reduction in the number of people affected by disturbance from flight operations notwithstanding such an expansion or reconfiguration. However, an increase will take place in the number of people so affected by the year 1990, as result of the projected increase in movements between 1985 and 1990.

On the basis of the evidence adduced, the Commission is of the opinion that a new runway parallel to runway 14/32 is probably required now at Malton, and that such a runway should be separated from existing runway 14/32 by a distance of 4,400 feet. Construction of such runway must take place even if there is a decision to proceed with the Pickering Airport as, realistically, the earliest date that Pickering Airport can be in operation is 1982 or 1984. Without such a runway, there could be a transportation breakdown at Malton until the Pickering Airport is in operation.

The residents of the Malton communities will have to accept that until the new Pickering Airport is in operation there will be an increase in the noise level to which they are presently subjected and that additional people will be affected by noise as a result of the construction of such a runway. Under the circumstances, the Ministry of Transport, Canada, must introduce all possible flight procedures that can be employed for the reduction of noise from aircraft operations in order to make the residents' situation as tolerable as possible.



## 6. Airspace

The airspace, or sky, around and in the vicinity of an airport may seem unlimited, but it is not. There is an ultimate limit as to the number of aircraft that can be accommodated in a particular airspace. The airspace of an airport may reach a saturation point before reaching its ultimate capacity depending upon a number of factors. If an airport does not have adequate runway capacity to receive and discharge all aircraft flying into and out of the airport, approaching aircraft will have to be held in the sky in and around the airport which leads to congestion of airspace. If the airspace does not provide for a multiple of arrival and departure airways, extensive queuing of aircraft will result which will lead to congestion of the airspace. A mix of high performance aircraft with general aviation aircraft, which usually have lower speed and descent capabilities, results in extra longitudinal separations and less than optimum descent profiles for carrier aircraft which contributes to the congestion of the airspace. However, the most important factor governing airspace capacity is the degree of efficiency and safety in which the airspace is managed. The management and organization of the airspace is the responsibility of air traffic control.

There are many navigational aids for the control and management of airspace. The basic aids are Airport Surveillance Radar (ASR) system, Secondary Surveillance Radar (SSR) system, Very High Frequency Omni Range (VOR) equipment and Distance Measuring Equipment (DME).

The ASR system usually consists of a radar antenna transmitter, receiver, performance monitor, video-processing assemblies and units that perform control and distribution functions. This equipment is installed at two sites, the transmitter or local site

which includes all the equipment except the video-processing and remote control equipment which are installed at the remote site. The two sites are connected to each other by means of an underground cable or a microwave data link.

The ASR system normally detects aircraft within 60 nautical miles of its location and permits air traffic control to issue instructions through radio communications and to direct flight patterns within the terminal area.

The SSR equipment comprises the same basic equipment as the ASR system but differs in a number of respects. However, it is normally operated in conjunction with the ASR system. The SSR antenna is mounted on top of the ASR antenna and rotates with it, so that both antenna beams are aligned.

The SSR system enables the air traffic controller to readily identify each aircraft on his display.

The VOR system is composed of ground station VOR equipment and a VOR antenna. The ground station of the VOR equipment is housed in its own building and the VOR antenna is normally mounted on the roof of the building.

The VOR is basically used as short range en route navigational aid. When the VOR is used in conjunction with the DME system on the ground and a course line computer in the aircraft, courses can be provided between any two points within the receiving ranges of the ground station. The basic purpose of the VOR system is to provide the pilot with a pre-determined course from his point of departure to his destination and to fix his geographic position.

## **AIRSPACE MANAGEMENT AND CONTROL**

There are three basic areas or zones which are regulated or controlled to provide efficient and safe operation of aircraft at various speeds and various weather conditions namely; airport control, or positive control zone; terminal control; and area of central control. Fundamental to each control zone are navigational systems called airways which are comparable to highways in the sky.

The positive control zone, or airport control, regulates from the control tower of the airport all traffic in the manoeuvring area of the airport and all aircraft flying in the vicinity of the airport



having a radius of 11 nautical miles from the centre of the airport to an altitude of 5,000 feet above sea level.

Terminal control provides control service, by means of the VOR system, for arriving and departing aircraft and en route aircraft operating within a radius of 22 nautical miles of the airport at an altitude of 700 to 23,000 feet by means of the VOR system.

The area of central control provides control services to aircraft operating under VFR and IFR rules at various altitudes and separations. It directs aircraft from an extensive area into the control area of terminal control and receives aircraft for control from terminal control. It is composed of various sectors or compartments.

### **AIRSPACE MANAGEMENT AT MALTON**

The primary traffic pattern in the Toronto area is in an east-west direction and in a to and from south direction. The present airway structure is based upon the use of point source navigational aids which provide only one direct track between adjacent navigational facilities, as result, congestion is a major problem. Some relief has been achieved by supplementing the existing airway with divergent tracks to the midpoint of the airway between adjacent navigational facilities, and then using converging tracks to the next facility. Aircraft flying these tracks are separated vertically by increments of 1,000 feet up to 29,000 feet, and beyond 29,000 feet by increments of 2,000 feet to the upper limit of the useable air space. Longitudinal separation is achieved by using specific time intervals between aircraft. Where radar control can be employed, the longitudinal and lateral separation requirements vary from 3 to 10 miles.

The structuring of these navigational routes or airways has developed to the extent that a majority of aircraft traffic now moves via a defined preferential airway system. As a result, traffic from the east, west and northern Ontario moves in and through the Toronto area on airways that converge on a navigational facility at Kleinburg, 15 miles north of Malton. Traffic from the south and southwest enter on the Toronto area and move on airways that converge on a navigational facility located at Malton. Almost all the aircraft departing from Toronto use a system of diverging airways based on the Malton navigational facility.

Severe air traffic congestion problems occur at both the Malton and the Kleinburg navigational facilities due to the converging of the navigational routes on these facilities. It is the convergence of the in-bound airways at these two facilities that has forced air traffic control to revert to vertical separation standards and in-flight altitude and airspace restrictions during peak hour operations. This has led to extensive queuing when air traffic control is required to use a radar controlled down-wind descent pattern in the immediate vicinity of the airport. The problem is further compounded when traffic consists of a mixture of both high performance air carrier type aircraft and smaller general aviation aircraft. The lower speeds and lower descent abilities of general aviation result in extra longitudinal separations for larger aircraft and less than optimum descent profiles for larger aircraft.

Evidence was adduced at the Malton hearing that the introduction of technological developments such as Area Navigation and Inertial Navigation Systems will permit a greater utilization of existing airspace, future navigational facilities already planned by the Ministry will improve the existing low altitude airway structure for Malton. New air traffic control procedures will increase the capability of air traffic control in the segregation and sequencing of air traffic prior to its arrival in the immediate vicinity of the airport.

The introduction of Area Navigation and Inertial Navigation Systems will provide increased accuracy in navigational capabilities which in turn will make possible the development of multiple parallel departure routes. As a result, aircraft with differences in performance capabilities can be assigned routings that are compatible with their operational characteristics, and thus reduce delays or operational restrictions now required when all aircraft are assigned a common departure route or initial low altitude airway. Similarly, it will be possible to develop multiple arrival routes which will reduce the amount of communication between air traffic control and the pilot, which is common to radar vectoring procedures, and thus give the air traffic controller more time for safety and control considerations.

The future planned air navigational facilities will result in a removal of the airway structures from the immediate vicinity of the airport with the result that the area in the immediate vicinity of the airport will be free for redevelopment of arrival and departure

patterns. A re-alignment of the low airway structures will alleviate present congestion problems in the Toronto terminal control area and will provide air traffic control with the increased ability for the segregation and sequencing of air traffic prior to its arrival in the immediate vicinity of the airport. As a result of the reduction in the terminal area airspace congestion, an increase in efficiency in terminal operations will be achieved. Radar arrival patterns will be shortened and an increased flexibility for departure procedures will be made possible.

The high altitude airway structure basically follows the same alignment as the low altitude airway structure; so no major relocation of navigational facilities or major restructuring of the high level airways patterns is foreseen. The new navigational facilities will enhance the high altitude airway structure.

However, wake turbulence considerations in respect to both arriving and departing aircraft will result in some limitation as to the maximum extent to which separation and sequencing for arrival aircraft will be increased, and as to the maximum extent to which flexibility for departing aircraft will be increased.

New air traffic control operational procedures are being developed to ease the control of air traffic in the Toronto area. The new procedures will be similar to those used in other parts of the world where high density air traffic has necessitated the introduction of specialized control procedures. These plans include the establishment of two sequencing or staging areas for arriving aircraft. This will alleviate traffic congestion in the terminal control area. By reconfiguring the airway structure, so that traffic convergence occurs outside the terminal control areas, air traffic control will be able to sequence the traffic to enter the terminal areas at predetermined altitudes, in trail, longitudinally separated and at designated speeds. Vertical separations will only be used where the flight performance capabilities of different aircraft require such a separation of aircraft.

The evidence before the Commission indicated that with the proposed introduction of the new navigational systems, the construction of new navigational facilities and the introduction of new air control operational procedures, the airspace at Malton will be sufficient to accommodate all forecasted air traffic movements to the year 2000.

## **PICKERING AND A TWO-AIRPORT SYSTEM**

Seven potential sites have been determined as being suitable for installing a VOR facility on the proposed Pickering Airport site. As further airport facilities are developed for the proposed airport, further studies will be conducted to ensure that the sites remain suitable. A final study will have to be made to determine which of potential sites is preferable.

Six potential radar sites have been determined for Pickering. If it is decided to proceed with Pickering, further studies will have to be made for a final determination as to which site is most suitable. It is possible that the radar system may have to be located off the airport site if none of the potential sites is found to be operationally suitable.

In planning a two-airport system, consideration must be given to the availability, organization and use of associated airspace required to accommodate aircraft movements at each airport as well as aircraft transiting the area of the two airports.

An important factor in ensuring a compatibility of airspace utilization is by having the runway alignment at each airport in the same approximate orientation. Other major factors are the configuration of the low altitude airway structure, the placement of terminal aids to navigation serving each airport and the desired traffic patterns of aircraft arriving and departing at each airport. The wind and weather conditions are basically the same for Malton and the proposed Pickering site which will enable a similar runway orientation.

The proposed Pickering site is compatible with the proposed restructuring of the low altitude airway structure for Malton.

The introduction of another airport in the Toronto area will require revision to the proposed new operational procedures for air traffic control. However, these changes will emerge as a natural progression to the procedures already being planned. It is anticipated that no major revisions will be required.

The shorter arrival patterns which will result from air traffic control plans to establish two sequencing or staging areas for arriving traffic, together with an increase in the airspace available

for departure routings, which will result from planned reconfiguration of low altitude airway structures, will permit a maximum independence of operations at both airports.

The Ministry plans a new area control centre for the Toronto area which will be designed to provide air traffic control services for the forecasted increase in air traffic movements by 1990. These plans took into consideration air traffic control requirements which would result by reason of changes in airspace usage. The present plans provide for an area control centre to be composed of individual terminal control areas for Malton and Pickering, with each terminal control area to be equipped with a separate terminal control unit. Each terminal control unit will regulate departures and arrivals operating at each respective airport. The traffic control units will be responsible for the coordination of final routings and altitudes with the appropriate sector of the area control centre.

The Commission concludes that from an airspace utilization point of view on the basis of changes to the present airway structures, planned navigational facilities and planned air traffic control procedures, the proposed Pickering Airport will not be incompatible with the airspace utilization of Malton or result in any unacceptable delays or conflicts in the utilization of the airspace at Malton.





## 7. Environmental Aspects

### AGRICULTURE

The Commission heard a great deal of evidence, and much public attention has been given, to the claim that an airport at Pickering would remove 18,000 acres of prime farm land, from the agricultural use which it is claimed is a necessity for the central Ontario region.

The facts appear to be very much to the contrary.

At the date of the expropriation, of the airport site, less than 50% of the site was either actively producing crops or used as pasture lands of any kind.

Creeping urbanization and the developers' push to the north and east of Scarborough and Markham had already heavily impinged upon the area. There was considerable evidence that the land was ripe for speculation for ultimate urban uses.

Over one-half the land area on the site was, at expropriation, either in the hands of developers or city residents who "week-ended" in the Pickering area.

The withdrawal of land from agricultural use in favour of development for a multitude of urban purposes is a major problem in Southern Ontario. This problem is accentuated by the purchase of property by city dwellers as "hobby farms" and by the fact that much land is purchased by speculative interests long in advance of any real need of the land for urban uses. Thus, land which still has a rural appearance often has had its agricultural productivity seriously reduced.

The Pickering site itself provides a good example. In spite of its excellent soil and climatic conditions, its actual agricultural productivity had fallen below much less favoured regions. The withholding of land for a single special urban use such as the Pickering Airport would be nothing more than an ineffective token; particularly as approximately two-thirds of the 18,000 acre site can be used into the indefinite future for intensive agricultural purposes and could outproduce the entire site as it was used immediately prior to expropriation. Land use planning on a provincial basis, backed up by strong legislation, would appear to be the only solution to this serious and growing problem.

Notwithstanding the above, it is imperative that any airport be developed to permit as much agricultural activity as possible on the site. The fact that airports and agriculture are compatible has been amply demonstrated in Canada as well as in other countries. For example, information regarding agricultural land use within the boundaries of some existing Canadian International Airports is summarized as follows:

<b>Toronto I.A.</b>	Approximately 1,200 acres of the 4,272 acre site are used for agricultural purposes. Half the land is used for pasturing purposes while the other half is used for growing soybean, barley and fall wheat.
<b>Ottawa I.A.</b>	Approximately 1,100 acres of the 5,110 acre site are used for the production of root crops, hay and small grains.
<b>Winnipeg I.A.</b>	Approximately 1,300 acres of the 3,770 acre site are used for the production of cereal crops.
<b>Vancouver I.A.</b>	Approximately 510 acres of the 3,620 acre site are used for the production of hay.
<b>Victoria I.A.</b>	Approximately 448 acres of the 1,100 acre site are used for the production of hay.

**Edmonton I.A.** Approximately 6,100 acre of the 7,600 acre site are used for agricultural production. Actual crops include alfalfa, wheat and barley.

**Calgary I.A.** Approximately 2,137 acres of the 4,222 acre site are used for the production of hay and for pasturing.

In some European countries where the shortage of land for agricultural purposes is more acute than in Canada, even more intensive cultivation of airport lands has taken place. Members of the Commission were able to observe this personally at Kastrup and Schipol Airports in Denmark and the Netherlands, respectively. Here, all land not needed for terminals, hangars, and other service buildings is utilized within at least 100 — 150 feet of the runways. Crops such as hay, grain, potatoes and sugar beets were observed between the runways. Hay was being mowed right up to the very edge of the runways. Intensively cultivated market gardens and greenhouses were found within 500 — 600 feet of runways. Schipol Airport points to a highly successful dairy operation and claims that no negative effects on the cattle have been observed from aviation activities.

Certain crops may attract birds which in turn pose a potential hazard to airplanes. Aircraft safety regulations do not, at present, specify what crops may or may not be grown within airport boundaries. However, the Ministry of Transport provides land use guidelines, based largely on past experience, for crop production on Canadian airports. The following crops are considered to be compatible with airport operations:

- Root crops
- Grasses and legumes for hay production
- Flax
- Soybean
- Fall rye, fall wheat, spring wheat
- Barley and other cereal grains.

Because of their attraction to birds, cultivation within the airport boundary is not permitted for the following:

- Peas
- Corn

Oats  
Sunflowers.

These guidelines have been drawn up for existing Canadian International Airports which range in size from 4,000 — 7,500 acres.

A fully developed airport at Pickering would occupy no more than 6,000 acres leaving approximately 12,000 acres. These acres could be used indefinitely for intensive agricultural purposes and, because of their distance from the actual aviation activity, few constraints would appear necessary on the crops cultivated. Some 1,500 — 2,000 acres could be used for a variety of agricultural purposes within that portion of the site where actual airport activities will take place, although some crops might have to be excluded. In some cases, it would appear that careful agricultural techniques would make possible some crops which are now considered unacceptable.

It is anticipated that neither farm houses nor farm buildings would be developed within the actual airport boundary but that land would be cultivated by farmers who live in the neighbourhood. Thus, the workers would be exposed to noise only during the relatively short time when the land was being prepared and the crops harvested.

### **CONCLUSION re AGRICULTURAL USE**

Agriculture and airport activities are compatible. Approximately 12,000 acres of the Pickering site could be used for agricultural purposes for the foreseeable future with few limitations on the types of crops, and no ill effects on common farm animals. Another 1,500 to 2,000 acres within the actual area to be used for airport activities could also be used for agricultural purposes. With the assurance that this land would be available for agricultural purposes in the long term, the productivity of the land could be raised, so that its output would exceed, by a considerable margin, the entire site as it was used immediately prior to expropriation.

The Commission adopts the summary of the examination of the area carried out for the Ministry of Transport, Canada, by Agrology Consultants Limited in March, 1974. An extract of its conclusions is as follows:



“The selection of the New Toronto International Airport site at Pickering has been criticized on the grounds that significant quantities of agricultural produce would be permanently lost and that the airport development would destroy a highly productive, viable and intensive agricultural industry.

The findings of this examination do *not* substantiate these objections to the selected site. While the airport site is physically capable of highly intensive agricultural enterprises, this high potential has not been realized for many years prior to the airport announcement. Relative to non-urbanized areas of similar physical capability, the airport area farms have experienced significant declines during the 1961-71 period.

This decline is evident from decreases in livestock numbers, decreases in farm sizes, decreases in farm and improved acreages and increasingly unfavourable economic performance indices. Net farm income generated on airport farms in 1971 justified farm real estate values of approximately \$450 per acre. Open market prices, on the other hand, were at least five times as high...

All land market activities prior to the airport announcement reflect a firm belief in the imminent termination of agriculture and an equally strong confidence in the non-agricultural development potential of the area.

A preliminary examination of potential agricultural uses on the airport site indicates that 1971 production and income can be readily surpassed during all phases of airport development and operation. With proper management, suitable leasing arrangements, farm reorganization and active participation of agricultural planning agencies (ARDA, OMAF and local farmers), the airport could be converted into, for example, a highly productive dairying area.

The airport development need not destroy this high quality farmland. In fact, the construction of the airport provides the opportunity for permanently maintaining most production above 1971 levels and, more generally, for reversing the pre-announcement agricultural deterioration trend.”

Such agricultural use can be implemented by leasing to farmers the lands not required for airport activities.

## **NATURAL ENVIRONMENTAL FEATURES**

Because the proposed airport site has been heavily used in the past for agriculture, there are few environmental features now in a natural state. However, there are some excellent woodlots which together with West Duffin Creek and its streamside forests have high aesthetic value and provide important habitat for wildlife. As a stream of relatively high water quality important in the rejuvenation of Lake Ontario, Duffin Creek must be classified as a unique environmental feature whose integrity should be maintained, even at considerable cost.

The natural topographical features of the site divide it into three regions. Region 1 lies to the west of the Stouffville branch of West Duffin Creek, Region 2 lies to the north of the east-west road through Claremont and Region 3 is the remaining segment of the site. Region 1 has been heavily utilized for agriculture in the past and should be continued to be used for this purpose. Region 2 is cut up by a number of tributaries to the main streams, is picturesque and contains most of the best woodlots. It should be used as mixed conservation and agriculture areas.

The runway concept, denoted 1-5 by the Ministry of Transport, Canada, could be designed and constructed so as to do very little damage to the west branch of Duffin Creek. If the Altna Tributary were diverted into the Stouffville Tributary, approximately 2 miles upstream from where they now link up, concept 1-5 would require only one crossing of the creek by a runway. As the actual runways might well be somewhat shorter than maximum length now quoted, it is possible that no runway crossing of the stream would be required. There appears to exist the possibility that the major stream could be left relatively untouched except for the removal of some of the taller trees in certain areas.

## **METROPOLITAN TORONTO ZOO**

From the evidence, the Commission has concluded that there can be a satisfactory accommodation between the airport and the Metropolitan Toronto Zoo.

## **ARCHEOLOGICAL SITES**

The timing of the airport development is such that the two archeological sites, currently identified, can be completely excavated and thoroughly studied before there is any disturbance by construction.

## **ADJACENT CONSERVATION AREAS**

It is difficult to estimate the negative effects from aircraft noise. On the one hand, users of the conservation areas will always be out in the open and therefore, exposed to the full noise. On the other hand, they will not use the facilities after dark; so the heavy penalty for night flights built into the NEF contours is irrelevant. One might anticipate that there will always be significant impairment of the users' enjoyment of the Claremont Park Conservation Area. The situation with regard to Goodwood Forest and Wildlife Area and Greenwood Conservation Area is less serious.

## **BIRDS**

Evidence was received respecting concern about birds interfering with flight operations, especially the Herring Gull population in the Pickering area and the nesting site of the Little Gull near Oshawa. The evidence from Ornithological Studies, in depth, which was put before the Commission and subjected to cross-examination, established that there is no basis for any concern that birds will interfere with flight operations if an airport at Pickering is built.

**BUILDINGS PRESENTLY WITHIN PROPOSED AIRPORT  
BOUNDARIES OF ARCHITECTURAL HISTORICAL  
SIGNIFICANCE**

There could be a programme implemented to move buildings of an architectural historical significance, presently scattered throughout the proposed airport site, to an area on the site and to locations off-site which would not be affected by noise disturbance from aircraft operations. These buildings could be refurbished and put to use for commercial, residential and other purposes.

## **8. Economic Impact**

Speaking generally, from the whole of the evidence, and taking “judicial notice” of what the forces of the market have caused, as exemplified by what has taken place in the United States and Europe where major airports have been established, it is patent that an airport and all the economic elements that are at work at an airport bring economic benefits to a community. An airport causes many jobs to be created. It provides transportation which attracts other industries and adds business revenue to the regional tax base. Inadequate capacity and access to an airport will curtail and abridge business activity and development, which are dependent on efficient and reliable air service. As a further consequence, tax revenue will also be curtailed and abridged.

It is also patent that it is absolutely essential to the strong economic base of the Province of Ontario that it possess an adequate air transportation system. It is also patent that any modern, progressive, vibrant metropolitan area within a province, such as the Toronto Metroplex area, requires substantial and efficient servicing by airport facilities, especially in its industrial and commercial sectors to permit the economy of such sectors to reach maturity.

In analyzing the economic impact on the Toronto Metroplex area of an adequate, substantial and efficient airport service, certain facts are clear.

An airport service is the vital connection between the Toronto Metroplex area and the nation. It serves as a substantial local employer of air crew, cargo employees, terminal administration and maintenance employees. It is also stimulant to industrial and commercial development in the surrounding area bringing new employment opportunities.



The Toronto Metroplex connection to the national transportation network is of major importance because the Toronto Metroplex economic well-being is, in a large measure, dependent on the value of the goods and services it can supply to other areas in Canada. The demand for basic goods and services in the export sector of the Toronto Metroplex economy creates jobs and payrolls that would not otherwise exist in the local economy. The creation of one export job begins a chain of events which is characterized and explained by economists using the phrases "employment multiplier effects", "income multiplier effects", and "total economic impact of basic activity"<sup>1</sup>. The result is that the total economic impact resulting from a single job in the Toronto Metroplex area is many times greater than the value of that initial job.

In addition, initially there will be purchase of goods and services during the construction of the airport facilities, if built, and the commercial and industrial facilities that will be established near the airport which will have the economic impact of bringing very substantial income not only into the region, but also into the Toronto Metroplex area.

Speaking generally, there is a significant correlation between regional growth and the level of air service as evidenced by the Dallas/Fort Worth Airport Study by the Regional Science Research Institute of Philadelphia. It is clear from that study that

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1. (see *Environmental Impact Statement Detroit Metropolitan Wayne County Airport study*.)

**Employment Multiplier.** Each basic job creates additional demands within the local economy. Examples of local service employment include the grocer, the plumber, and others selling professional and personal services. Based on prior studies, it is estimated that, in an area the size of Detroit metropolitan area, for each job created in the basic sector, there is simultaneously created a demand for 1.5 service jobs.

**Income Multiplier.** When a dollar from outside the area enters the income stream within the local economy, the person who receives it has a predictable propensity to save part of it and spend the balance. This expenditure becomes new income to the recipient who likewise saves some of it and spends the remainder. Consequently, the impact of these successive rounds of spending creates a total income within the local economy greater than the amount of the initial dollar. For an area the size of the Detroit metropolitan region, the income multiplier ranges between two and three.

**Total Economic Impact of Basic Activity** The income and employment multipliers taken together have an amplifying effect upon the income and jobs created by a basic activity. Assuming the average salary paid by airport enterprises (\$10,000) closely approximates the present average salary level in the Detroit metropolitan area, the basic and service sector payrolls can be taken together for purposes of analysis. Thus, one basic job plus the 1.5 service jobs created by it equal 2.5 jobs. These jobs represent a combined average payroll of \$25,000 (assuming a \$10,000 average wage). This \$25,000 payroll means the total income to the economy at two to three times the initial payroll income is between \$50,000 and \$75,000 annually. One basic sector job has, in other words an ultimate impact of five to seven and one-half times its own value (or an average of 6.25).

rapid growth industries concentrate in rapidly growing regions and that rapid growth industries tend to make heavy use of air transport.

Speaking specifically in relation to the Toronto Metroplex area, the evidence from study and research shows a close connection between the amount of Toronto Metroplex area employment in firms with branches or head offices in other cities, and the amount of business air travel. Fifty-four (54%) per cent of industrial employment in the Toronto Metroplex area is by companies with external affiliations, which are mainly growth industries. From a regional point of view, it is significant to note that in the Malton area alone the above figure is eighty-four (84%) per cent.

Again speaking specifically about the region in which the Pickering site is located, the evidence indicates that the proposed Pickering airport site is in Zone 1 of the Province of Ontario Toronto-Centred Region Design for Development; and that the "North Pickering Community" replaces the proposed Cedarwood and Brock developments.

As to economic impact on this region, the evidence, among other things, dealt with on-airport employment, the effect of the airport system on the distribution of people and jobs in the region, and the nature of the probable development in the region in which the proposed Pickering Airport is to be located, if built.

The Commission has carefully considered all this evidence and also has taken "judicial notice" of what the forces of the market have caused to be done in other places as previously mentioned in this section. As a result, it has come to the following conclusions:

First, the building and opening of the proposed new international airport at the site near Pickering would substantially influence the pattern of development in the Toronto Metroplex area by providing the area northeast of the present Metropolitan Toronto with a substantial development impetus, while at the same time reducing somewhat the development pressures to the west of Metropolitan Toronto. As result, the Province of Ontario goals in its design for the Toronto-Centred Region would be materially assisted.

Second, the growth in air travel, by such a new airport, if built, would be paralleled by a growth in employment opportunities available at such airport.

Third, the nature of the economic development around the proposed new airport at Pickering, if built, will probably be similar to that presently existing around Toronto International Airport, Malton, namely: (1) substantial hotel development; (2) the location of a large proportion of growth industries; (3) the establishment of industries with a large dependence on air transportation for their shipments; and (4) many of such industries would be branches of parent companies located outside Toronto, that is, in other Canadian cities or in foreign countries.

Fourth, initially, during the development and building of the proposed airport, on-airport employment and purchases of material will have a most significant economic impact on the region.

In sum, the Commission is of the view that if a new airport is established on the site near Pickering, its economic impact on the immediate region will be most substantial in terms of increased goods and services and its effects will be felt throughout the whole Toronto Metroplex area. Such economic impact will substantially assist in the implementation of the Province of Ontario's design for the Toronto-Centred Region and will be a major catalyst and impetus for development east of the Toronto metropolitan area. There are many other factors which will effect the final total economic impact. These include the manner in which, and how soon, adequate ground roadway access is built to service not only the new proposed airport but also the new proposed North Pickering Community; how the total area is zoned for land use so as to cause the manner and place where commercial and industrial and residential areas will be built up.

## **9. Energy Crisis**

Because of the particular significance that the energy problems of the world to-day have for so many, the Commission wishes to make some comment upon this subject. The cost and availability of energy are going to be felt in the future in various ways, and with different weightings. It is very difficult for the Commission to make any statement that can be clearly established as unassailable. Yet, on the other hand, the current energy situation is going to have an impact on many economic activities in the future, at least until the changes in price works through the system, which may take several years. These economic repercussions surely will affect the number of persons who will travel by aircraft although it is very difficult to predict quantitatively the end result.

### **ENERGY COSTS**

Some of the ways in which higher cost energy may affect air travel, are as follows:

1. As we have commented elsewhere, elasticity of demand will depend to a considerable degree upon the price of fares. The price of fares in the future can be affected by the cost of energy sources, particularly jet fuel, despite the fact that it has been argued that the proportion of the fare for air travel that is devoted to the cost of fuel is small in comparison to the other costs. If the resulting increase in fares is much greater than the general inflationary trend, one might expect some negative effect on air travel volume.
2. A shortage, or the higher cost of energy, also may affect the broad development of an economy. It seems apparent

that the propensity to travel is related to incomes. It is clear also that incomes are related to the virility and strength of the economy. In turn, the virility and strength of economy, particularly in an industrialized society such as that which we possess in Canada, is related to the availability, the supply and the price of energy sources. If in the future energy becomes less available than it has been in the past, or becomes a great deal more expensive, then this will have an influence upon the Canadian economy and, in turn, upon the members of the economy and, therefore, upon the travel propensity of the passengers. The strength of the economy unquestionably also will affect the volume and timing of cargo to be carried, and as well, one would presume, of the development of new aircraft techniques and new aircraft themselves.

3. If the economies of other countries are weakened by energy problems, it is probable that the amount of international travel would be reduced in Canada. That is to say, if the economy at the far end of international trips is not strong, there will be less reason for Canadian business men to use travel abroad. Also, the number of visitors to Canada from abroad probably would be reduced.
4. To a certain extent, direct communication can replace certain business trips and trips to see relatives. If travel becomes appreciably more expensive, and there are further developments of communication technology, there might be some swing away from air travel to the use of the various communications media.
5. Not all the influences will tend to reduce air travel; some may increase it. For example, automobiles are relatively inefficient in their consumption of fuel, and fuel costs represent a large fraction of their total operating costs. Also, in any serious shortage of fuel, its availability for automobiles is likely to be more uncertain than for airplanes. For these reasons, one might expect a shift away from long distance automobile travel to air travel.

For the past number of years, the price of crude oil in terms of its energy content has been substantially below the cost of other types of energy. This was brought about by the incredibly low cost



of production of Middle East oil. The O.P.E.C. countries have been successful in drastically raising the price of their crude and other producers have followed suit. This will change both the supply and demand. The supply will be increased, at least in the short term, because some unused existing wells and some new crude sources now will be economically competitive and brought into production. The demand will be lowered because of a switching to alternate energy sources which are now more attractive from a cost standpoint.

At the present time, world production of crude oil exceeds demand and a surplus is accumulating. In such circumstances, the price normally would be expected to decrease, but the O.P.E.C. countries have been able to keep it up by political action. It is difficult to say just where this will lead. However, one might surmise that the major price increases, as experienced in the recent past, are over for the time being and further increases will be more in line with the general inflationary trend.

### **FUEL AVAILABILITY**

Although world production of crude oil exceeds demand at the moment, a great deal of current evidence indicates a growing discrepancy between world energy demands and the supply of hydrocarbon fuels which will become serious early in the 21st century. Hopefully, the demand will be reduced by a "conservation-ethic" — the current wastage in automobiles and in building heating is staggering. Also, significant switches to alternate energy sources will be made. Nevertheless, the supply of hydrocarbon fuels is finite and this problem must be considered.

Although not extremely rich in oil and gas by some standards, Canada is in the happy position of having supplies adequate for her own needs for the foreseeable future. This is not to say it is all easily available. Development of the tar sands (a proven resource) will require much hard work and tremendous capital investment. Although substantial reserves have not been found and proven yet in the Arctic basin and Atlantic Continental Shelf, the available evidence gives good reason to be optimistic that large amounts will be found.

Assuming that Canada has adequate supplies of crude oil, the question still remains whether sufficient will be used to provide jet

fuel to meet transportation demands. In the past, Canadian refineries have not produced all the jet fuel used in Canada and substantial amounts were imported. However, this was not caused by a lack of capability but by political-economic considerations comparable to the situation where we exported crude from Alberta to the U.S.A. while importing crude into Quebec and the Atlantic Provinces. At this time, it may be questionable whether the high aromatic content of syncrude from the tar sands prevents the preparation of acceptable jet fuel from this source but this is not an insurmountable problem anyway. Refineries are accustomed to blending crudes from different sources to obtain the desired characteristics in a product. Another alternative is to reserve the required amount of conventional crude for jet fuel production and use the syncrude as a substitute for the conventional crude.

Finally, one must ask if it is likely that Canada would give high priority to providing jet fuel. Some switching to alternate energy sources (e.g. gas, coal, nuclear derived electricity) is likely to be required but this is much easier for ground based facilities than for air transportation. For the following reasons it is expected that the Government of Canada would give high priority to jet fuel production:

- (a) Jet aircraft are efficient in terms of energy consumption for passenger transportation over long distances.
- (b) Canada's huge distance dictates the need for a high speed transportation system.
- (c) It is relatively easier to change other energy consumers to alternate energy sources.

Of course, the availability of jet fuel outside Canada is also important in considering the likely passenger volume at a Canadian international airport. The advent of the jet has brought about a vast increase in travel for pleasure as well as business, and a massive switch to aircraft for long distance travel. Air travel has reached the proportions where it is an important component of the economy in many countries. For these reasons, and others similar to those listed for Canada, it is believed that jet fuel production will be given high priority around the world.

## **TRANSPORTATION MODE EFFICIENCY**

Transportation accounts for 33% of Canada's total energy consumption; so efficiency of energy use by the various transport modes is an important consideration. The road modes, including automobiles, trucks and buses, use approximately 16% of the total and pipelines and other transmission systems account for over 10%. This leaves water, air and rail modes which each account for less than 2% of Canada's total energy consumption.

There seems to be a great deal of misunderstanding about the efficiency of the various transportation modes. For example, it was asserted at one of the Hearings that train transport is many times more efficient than air travel in transporting passengers. As will be shown later, this is not correct; over long distances, the two modes are quite comparable for passenger travel. These misunderstandings seem to have arisen for various reasons, but two particularly important ones are that there has been confusion about the terms used to express efficiency, and cargo and passenger traffic have not been separated. For example, some of the terms used to express efficiencies include the weight of the vehicle, whereas one should only include the useful (i.e., passenger) weight that has been moved. The importance of separating passenger and cargo traffic lies in the fact that, although it is true in a general sense that the efficiency of moving cargo is higher than passengers, the differential varies markedly between modes so mixing the types of traffic can lead to very misleading results.

In comparing efficiencies of energy use for the various modes, it is convenient to use the concept of energy cost as the ratio of the work done in transporting the payload to the energy consumed during the process. The energy cost then emerges as a dimensionless number. For example, consider a 200 pound man who drives a distance of 20 miles in a car that averages 20 miles per gallon of gasoline. The useful work performed, measured in foot-pound units, will be the transport of the man over the 20 mile distance. The energy used in performing this work will be simply the energy content of the gasoline and the efficiency or energy cost is simply the ratio of the two. i.e. energy cost:

$$\frac{0.75 \times 10 \text{ pounds/gallon} \times 19,000 \text{ BTU}^*/\text{pound} \times 778 \text{ foot-pound/BTU}^*}{20 \text{ miles/gallon} \times 5,280 \text{ feet/mile} \times 200 \text{ pounds}}$$

$$= 5.25$$

In this example, the energy cost is 5.25 — in other words, for every foot-pound of useful transportation work done, over five foot-pounds of energy are consumed performing the task. If the payload is increased, say by carrying another person of the same weight, then the value is effectively halved; if a third person is added the value reduces to about one third and so on.

The value described above is called the point-to-point energy cost — it does not take into account energy consumption not directly related to the 20 mile trip. In the case of the automobile, this overhead energy consumption would include such things as taking the car to the garage for maintenance or refueling, engine warm-up, idling during stops at signals, etc. Including this unavoidable energy consumption in the total produces a value called the system energy cost which is always higher than the point-to-point value. For the example given, the single 200 pound passenger in an automobile which averages 20 miles per gallon, leads to an energy cost of about 6. In the case of aircraft traffic, the system energy costs is approximately double the point-to-point energy cost.

Energy costs for the various modes will now be compared. These are all in terms of system costs and apply for a load factor of 65% except for the automobile.

### **Energy Cost for Passenger Traffic**

#### **TORONTO – MONTREAL RUN**

DC 9	STOL <sup>1</sup>	TRAINS	BUS	AUTO	HIGHSPEED MAGNETIC LEVITATION
3.5	5	2	1	6 (one occupant) 3 (two occupants)	10

#### **TORONTO – VANCOUVER RUN**

747	DC-8	TRAIN
2.8	3.5	2.5

\* British Thermal Units

<sup>1</sup> Estimated for DHC 7

**Energy Cost for Cargo Traffic****TORONTO – MONTREAL RUN**

DC-8	DC-9	TRAIN	TRUCK
3	3.5	0.04	0.4

**TORONTO – VANCOUVER RUN**

747	BEST AIR <sup>1</sup>	TRAIN
1.3	0.6	0.03

These figures were determined on the assumption that only passengers were conveyed. In fact, both trains and planes carry baggage and various cargos. The effect of considering cargo as well as passengers can be quite dramatic.

The wide-bodied planes can carry a great deal of cargo in addition to passengers, and in the case of the Boeing 747 for example, the energy cost of cargo and passengers is about 1.4 if it has a full load of cargo, and 65% of its rated passenger capacity.

It is clear from these figures that the large modern planes such as the 747 rival trains for fuel efficiency for passenger travel over large distances. Trains, on the other hand, handle passengers more efficiently over short distances and cargo over any distances. The real achiever in moving cargo, although it has not been shown in the tables, is the “super-tanker” which obtains energy costs below 0.005.

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<sup>1</sup> Estimated for Boeing Resource Carrier





## 10. Air Cargo

The Commission heard evidence that at the present time the use of aircraft as a mode of moving cargo is in its infancy, although there has been a steady growth in the amount of freight carried by air. It is predicted that there will be a rapid rate of increase in the use of aircraft as a mode of moving freight and that larger tonnages will be moved by air.

There is an explanation as to the reason for such a great and rapid growth in air cargo in the future, even though this has not been the case in the past. In the past, there was a lack of consistency in schedules for aircraft movements for freight. The previous generation of passenger aircraft were limited in the amount of tonnage that could be carried with passengers. In order to carry greater amounts of cargo, airlines would have to incur the expense of buying larger aircraft which would be devoted exclusively to air cargo. There appeared to be an inability on the part of airlines to separate the economics of air cargo from the transportation of passengers and prove a profit.

The introduction of the large-bodied aircraft such as the DC-10, the B-747 and the L-1011 with huge cargo capacity has revolutionised thinking in the air transportation industry in respect to aircraft as a means of carrying freight. As a result of the cargo capabilities of the new aircraft, air cargo has become less expensive than in the past in relation to other modes for the shipment of goods such as rail and road transport. The introduction of the large-bodied aircraft permitted the use of containers for air freight shipment which has resulted in unit cost savings. In addition, there is a unit energy cost advantage, based upon a system energy cost, as more fully discussed under the heading "Energy Crisis", when the unit energy cost of a B-747 with a 70% load factor for passengers

and cargo is compared to a DC-8 or with a continental passenger train on a Toronto to Vancouver route. The respective unit energy costs are: B-747 — 1.4, DC-8 — 3.5, continental train -2.5, and for a combined continental passenger and cargo train — 1.3.

It is predicted that the large-bodied aircraft will exploit the cargo market by providing large tonnage capabilities, regular schedules, and a fast mode of transportation. It is also anticipated that once the advantages of aircraft as a means of transporting cargo are generally accepted, the air cargo market will exceed the passenger market. Once this occurs, the real challenge to the air transportation system will be to ensure that passengers are not abandoned in favour of cargo, as has been the case with ships and railways.

Evidence was adduced before the Commission by the Ministry of Transport, Canada, of a forecast of tremendous growth of air cargo in the central Ontario market. The Commission also heard testimony as to similar predicted growth rates of air cargo in the Chicago and Dallas/Fort Worth areas of the United States. The planner of the Dallas/Fort Worth Airport is so confident that the predicted growth rate in air cargo will be achieved that in planning the new Dallas/Fort Worth Airport, provision was made for two hundred gate positions for freighter aircraft, which gates will be constructed as required. In the United States, it is predicted that during the period 1970 to 1980, air cargo will increase at an annual rate of 18%, and that during the period 1980 to 1990 air cargo will increase at an annual rate of 15%, and that during the period 1990 to 2000 the rate of growth for air cargo will be 13% annually. The Commission heard similar predictions as to the growth of air cargo in its talks with representatives of the British Airports Authority, Aéroport de Paris and the Rome Airport Authority.

During the period 1961 to 1971, there has been a steady annual growth rate of 10% in air cargo at Malton from 21 million pounds in 1961 to 207 million pounds in 1971.

The Ministry of Transport has made forecasts as to the number of pounds of air cargo that will be carried during the years 1980, 1990 and 2000. The cargo forecasts were based upon data which showed the geographic location of the origins and destinations of air cargo shipments within the Toronto Metroplex. The shipments were then converted into pounds to provide an estimate

of overall distribution of cargo demands. The cargo demands were then assigned by city groups and directions. Estimates were made as to the amount of air cargo that would be carried in the cargo compartment of passenger aircraft, and the appropriate percentage of the total forecasted cargo was assigned to passenger aircraft for a particular direction, and the balance of the cargo for that direction was assigned to pure freighter aircraft. Accordingly, the number of pure freighter movements is related to the total movements by air passenger aircraft.

The Commission sets out in the following Table the forecast as to the pounds of air cargo that will be carried in each of the years 1980, 1990 and 2000 as well as the actual amount of air cargo carried in the year 1971.

<u>1971</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
207 million lbs	925 million lbs	3 billion lbs	8 billion lbs

The forecast of annual and daily pure freighter movements which will carry air cargo, over and above that carried in the cargo compartment of passenger aircraft, for the years 1980, 1990 and 2000, as well as annual and daily movements in 1970, with the number of annual movements being designated as "A" and the number of daily movements being designated as "D", is as follows:

<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
A-1280 4-D	A-7,232 20-D	A-15,270 42-D	A-44,060 121-D

The total daily forecasts and annual forecasts for freight movements are divided equally between arriving and departing aircraft.

It has been noted, elsewhere in this report, that air freighter movements do not have any major effect on the scheduled peak hour demand as arrival and departure times for air freighter movements can be moved out of the scheduled peak hour demand. The only basic limitation on the movement of air freighter aircraft is the curfew imposed at Malton for arrivals and departures and any curfew that may be imposed at the other end of the flight.

However, shippers prefer a heavy concentration of flight operations during the night hours after the close of the normal passenger day and after shipping docks are cleared by pickup services bringing air cargo to the airport for trans-shipment.

There was testimony before the Commission that Canadian air carriers have experienced difficulty in filling the cargo compartment of passenger aircraft with freight. This is especially so in the case of an aircraft flying from the west to the east. Accordingly, Canadian air carriers do not see any material change in the future. However, this raises the question as to the extent that Canadian air carriers have pursued a vigorous policy to capture a share of the freight market in the past and the extent that they will pursue a vigorous policy in the future.

The Commission also heard testimony as to the development that is taking place in the United States in respect to the C-5A aircraft. The C-5A aircraft was developed originally for military purposes. It is now being adapted to civilian use. It is substantially bigger than a B-747. It can accommodate 6 Greyhound buses in the fuselage with considerable space above the buses for carrying other cargo. It can accommodate 5 railway tank cars with a capacity of 10,000 gallons of fuel per car. With full load, it has a range of 5,500 miles. Tests are being undertaken in the United States by representatives of Lockheed Aircraft, in conjunction with the Department of Transportation, Department of Defence and Freight Forwarders, to demonstrate the economies and time saving benefits which will result from shipment by air. It should be noted that one of the main economic benefits that will result from the movement of goods by air in this manner is the reduction of inventories which are required now due to the length of time required for shipment by other modes of transportation and consequent savings in warehouse space and costs of carrying inventories.

The rate of growth in the movement of commodities by air will depend upon the degree of aggressive marketing pursued by the air carriers. If the potential growth is achieved, provision will have to be made at airports to accommodate air cargo movements and the handling of air freight.

It should be noted that pure freighter aircraft movements contribute disproportionately to the noise problem associated with aircraft movements. This is due to the fact that the aircraft are



operating at a greater weight capacity in relation to maximum gross weight than air passenger aircraft. As a consequence, pure freighter aircraft are not as adaptable to noise abatement procedures as air passenger aircraft. Accordingly, the growth of air cargo will be encouraged if air cargo aircraft can operate from airports which are freed of noise considerations and curfews.



## **11. Technology**

The Commission has dealt elsewhere in this report with new technological developments in relation to runway capacity, operational flight procedures, the jet engine, the means of forecasting the number of people affected by noise disturbance from aircraft operations and air cargo. The Commission now considers other technological developments not previously mentioned.

### **NEW AIRCRAFT**

#### **SUPERSONIC TRANSPORT**

It has been previously mentioned that the flying of aircraft in such a manner as to create a sonic boom is banned by law in both the United States and Canada.

The only supersonic transports presently flying are the Concorde, a joint project of the British and French Governments, and the Russian TU-144. The Concorde has the capability of making a trans-Atlantic return flight in just over six hours. At present, the noise characteristics of this aircraft, flown at subsonic speeds, are comparable to the noise characteristics of a DC-8. It is powered by a straight jet engine with completely different turbo machinery features than other jet engines. At subsonic speed, it will not meet the requirements of FAR 36, and there is no known technology to enable it to meet the noise standards of FAR 36 in the 1974 - 1980 time frame. The Russian TU-144 has noise characteristics greater than a DC-8.

## **SUBSONIC CONVENTIONAL TAKE-OFF AIRCRAFT**

Various derivatives of the DC-9 are proposed which will fly in the early 1980s. These will have air passenger capacity of 169 to 200 seats. Their noise characteristics will meet the standards of FAR 36. Various derivatives of the B-747, the DC-10 and the L-1011 are also planned. These will take the form of shortened and stretched aircraft. These aircraft will meet the standards of FAR 36.

## **SHORT TAKE-OFF AND LANDING AIRCRAFT**

The Commission has expressed its view as to the role of short take-off and landing aircraft elsewhere in this report. However, the Commission again wishes to caution that considerable care must be exercised in the introduction of STOL aircraft in communities not previously exposed to aircraft noise, to ensure that the noise level of the aircraft is acceptable to the community.

## **VERTICAL TAKE-OFF AND LANDING AIRCRAFT**

Vertical take-off and landing aircraft is represented by the helicopter.

Development is being conducted for a vehicle having the capacity of 46 passengers at a range of 285 miles at a speed of 173 miles per hour. It is anticipated that such a vehicle will be in operation prior to 1980. It should be noted that a helicopter generates more wake vortex per pound than conventional take-off and landing aircraft.

## **OTHER AIRCRAFT DEVELOPMENT**

It has been suggested to the Commission that it is not unrealistic to assume aircraft will be flying before the year 2000 having a weight double the weight of the current B-747. One airport planner believes that the noise problem of the supersonic jet aircraft on, and adjacent to an airport, will be resolved.

Before the year 2000, it has been predicted that hypersonic aircraft will fly at a speed of 4,000 to 5,000 miles, or more, per hour.

Even rocket propelled aircraft can be expected. Such a development would permit a trip to Japan in two to three hours.

## **ELECTRONICS AND AVIONICS**

Rapid technological advances are being made in electronics and avionics. These advance systems will enable aircraft to be controlled in critical flight conditions without increasing the work load of the crew. In addition, the capacity of computers will be increased which will improve the performance of existing tasks of the air traffic controller and make new tasks possible. A fully automated air traffic control system will be possible which will reduce delays and permit more direct flight routing.

Much of the present voice communication between the ground and the pilot will be replaced by the exchange of data between the ground computer and the aircraft computer. More precise navigation will result which will enhance terminal area manoeuvring capability. These improvements will enable the aircraft to have greater capability for curved approaches and departures procedures to reduce noise from aircraft operations.

## **NEW FORMS OF COMMUNICATIONS**

The Commission heard evidence as to the replacement of the present mode of travel by a two way visual telecommunication system. Instead of travelling from one city to another to exchange information, a television conference studio is established in each of the respective cities. A person or group in Toronto wishing to meet a person or group in Montreal, instead of flying to Montreal, would attend a conference television studio in Toronto, and the person or persons with whom he or they were to meet in Montreal, would attend a television conference studio in Montreal. With the development of satellite telecommunications systems, the two way television conference system can be expanded. The benefits of such a system will reduce the direct cost associated with travel, that is the purchase price of a ticket, hotel accommodation, meals, taxis and other expenses directly attributable to the cost of travel, and the indirect expenses of travel such as loss of productive time during the duration of the trip. At present, the direct cost of travel is cheaper than the cost of a two way system of communication. It is



anticipated that increase in the acceptance of this new form of communication will result in a reduction of cost.

Of course, this form of communication will provide no substitute for the holiday traveller. It will provide some competition not only to air transportation travel but also to rail, automobile and bus transportation travel. However, the Commission is of the opinion that it will not have a significant impact on any of the existing modes of travel.

### **HIGH SPEED TRAINS**

The Commission heard evidence as to the development of high speed trains, and in particular, a magnetic levitation system which is a non-contact suspension and non-contact propulsion system.

The magnetic levitation system takes two forms, the use of super-conducting magnets for high speed inter-city transportation of 300 miles per hour carrying 15,000 passengers per day, and the use of conventional electromagnets for lower speed intra-city transportation of 50 miles per hour with the capacity to carry 20,000 passengers per hour. It is estimated that the high speed system will not be available until 1990 due to the need for further technology and engineering and required time for construction. It is estimated that the low speed system will be available in 5 years. The Commission received no satisfactory evidence as to the cost of either system. Projections of the unit energy cost, more particularly discussed under the heading "Energy Crisis", indicate that the unit energy cost of a high speed magnetic levitation system will be 10 units for distances of 300 miles. Under the circumstances, it would appear that a magnetic levitation system will be the most inefficient mode of moving people from a standpoint of unit energy consumed in relation to the work done.

The Commission found a general consensus, in its discussions with officials of London, Paris and Berlin, that it would be ill-advised to base plans for the movement of people between cities on a magnetic levitation system as the required technology does not exist. There was also a general consensus that a steel-on-steel system is the best means of providing a high speed groundlink between cities, within the limits of foreseeable technology. It is within the capability and availability of equipment and reliability

of operation, and it would be most adaptable to replacement on evolution of current railway technology.

It was suggested in evidence before the Commission that high speed trains will provide substantial competition to conventional take-off and landing aircraft in the inter-city market. It should be noted that there was evidence before the Commission that only 25% of the passengers in the Toronto to Montreal market have a downtown Montreal destination. It should also be noted that present railway technology permits line-haul speeds in the range of 125 miles per hour. Line-haul speed refers to the maximum achievable speed on a straight run rather than the actual speed that will be achieved during the duration of the trip. While the Commission is of the opinion that, within foreseeable technology, any future development of high speed trains will provide line-haul speeds up to 200 miles per hour, this will probably result in greater competition to bus transportation, the automobile and any future inter-city STOL service than to conventional take-off and landing air transportation. Travel time will still be less by this mode and will provide a more convenient service to those persons not having a downtown destination.



## 12. Travel Habits

Since the advent of the jet-age in the early 1960's the travel habits of Canadians have changed drastically.

Particularly in the movement of families and persons on holidays to overseas and the Florida/Caribbean markets, the increase in the number of air passengers has been nothing short of phenomenal.

One of the principal factors for this tremendous change in the travel habits of the Canadians was the appearance of charter flights and the all-inclusive tours, operated by the scheduled airlines as well as the charter carriers.

The evidence of Maxwell Ward, the President of Wardair Canada Limited, indicated two significant factors regarding the travel habits of Canadians. The first was that notwithstanding the fact that fares for Advanced Booking Charters (ABC) had increased by 25% in 1974, there was no noticeable effect on the number of charter passengers carried.

The second significant fact stated by Mr. Ward was that in the year 1974 Wardair will process approximately 200,000 passengers through Malton, and that by the year 1980-81 this will probably increase to 1,000,000.

The projected increase by one air carrier operating from Toronto of five times the present number of passengers in the short span of 6 years indicates that the trend of the residents in the Toronto Metroplex to travel is far greater than in other areas of North America. This trend appears to be irreversible.

Notwithstanding the increase in the cost of fuel and the resultant fare increase, no one, with any real knowledge of the growth of travel by aircraft, was able to suggest that the travel habits of Canadians would diminish in the coming years.

The evidence was that the younger population of Canada is more inclined to use aircraft as a means of travel than their parents. Approximately 60% of the population of Canada is under 30 years of age, from which it is reasonable to infer that the propensity to travel by air will continue to increase.



## 13. General Aviation

For the purposes of the Airport Inquiry Commission, general aviation was defined as including all flying activities conducted by flying training organizations, private business, recreational flying, and charter flying by commercial air carriers with aircraft generally under 12,500 pounds weight. For the most part, these aircraft operate under visual flight rules and use runways of a length of 3,500 feet or less. The definition does not include the larger air carrier aircraft, scheduled operations or commercial training activities, or private charter or corporate aircraft with large high performance turbo-prop or turbo-jet aircraft which operate for the most part under instrument flight rules. This latter class aircraft are required to operate from major airports due to a number of factors such as the length of runway they require, their high performance operating requirements which in turn require facilities presently only offered at a major airport, and for training under instrument flying rules.

General aviation aircraft movements are divided into two classes, local movements (movements by aircraft that originate and terminate at the same aerodrome and do not leave the airspace of the aerodrome) and itinerant movements (movements that originate at one aerodrome, leave the airspace of that aerodrome and terminate at another aerodrome).

It is easier to discourage movements by local aircraft at major airports, through specific measures, than it is to exclude itinerant movements. Policies designed to discourage local aircraft movements have resulted in a 50% decline in the number of annual local movements at Malton.

## **FORECAST OF ANNUAL MOVEMENTS OF AIRCRAFT TO THE YEAR 2000**

The Ministry of Transport, Canada, has made two forecasts of annual movements by general aviation aircraft to the year 2000. The latest forecast divided the movements into two categories, local movements and itinerant movements, and each category was subdivided into two classes, aircraft movements that require the facilities offered at a major airport and aircraft movements that do not require such facilities.

It is the itinerant traffic in which there has been a significant increase in the past which it is estimated will continue in the future insofar as major airports are concerned. It is predicted that the rate of growth in itinerant traffic movements will be slightly faster than local traffic movements. The estimated overall growth rate for the period 1971 to 2000 is 390% for itinerant traffic and 320% for local traffic. The annual percentage growth rate of general aviation aircraft movements in the Toronto area for the period 1970 to 1980 is estimated to be 6.4%. This slightly exceeds the annual percentage growth rate of movements for the same period for the whole of Canada but is less than the forecasted growth rate, for the same period, for Vancouver and certain selected cities in the United States.

The latest forecast of general aviation movements for the years 1980, 1990 and 2000 as well as the estimated annual movements for the year 1971, with 'L' being used to designate local movements, 'I' being used to designate itinerant movements and 'M' being used to represent the number within the local movements and itinerant movements, as the case may be, which will probably require the facilities of a major airport, are as follows:

<u>1971</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
795,000-L	1,136,000-L	1,601,000-L	2,512,000-L
22,000-M	8,000-M	9,000-M	11,000-M
282,000-I	477,000-I	732,000-I	1,091,000-I
55,000-M	101,000-M	166,000-M	252,000-M

The total annual general aviation aircraft movements, including both local and itinerant movements and the number of such total movements which will probably require the facilities offered at a major airport for each of the above mentioned periods, are as follows:

	<u>1971</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
Total movements	1,077,000	1,613,000	2,333,000	3,603,000
Total number of movements which require facilities of a major airport	77,000	109,000	175,000	263,000

Of the total general aviation movements which will probably operate from a major airport, it is not essential that all such movements be handled at a major airport. The number of general aviation aircraft movements which must be handled at a major airport for each of the aforesaid periods is as follows:

<u>1971</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
10,000	21,000	48,000	63,000

Within the general aviation aircraft movements which do not require the facilities of a major airport, some movements require tower facilities while others do not. However, the overwhelming majority of such movements do require tower facilities.

#### **THE PROBLEM OF MIXING GENERAL AVIATION AIRCRAFT AND SCHEDULED COMMERCIAL AIRCRAFT AT MAJOR AIRPORTS**

The mixing of heavy air carrier aircraft and light general aviation aircraft with widely divergent performance characteristics can lead to conflict for air traffic control at or in the vicinity of the airspace of a major airport due to the greater separation standards required between light aircraft and heavier aircraft. In addition, runway capacity is reduced on arrival and departure due to the greater separation standards required between a light general

aviation aircraft landing after or departing after a heavier aircraft, having regard to wake turbulence considerations. In order to avoid some of these problems, most general aviation aircraft movements are prohibited during the scheduled peak hours.

As the growth in general aviation aircraft movements at major airports increases, conflicts and congestion will also increase.

### **THE IMPORTANCE OF GENERAL AVIATION**

90% of all aircraft movements in the Toronto area are by general aviation aircraft. General aviation aircraft accounts for 20% of all the aircraft movements at Malton.

It is estimated that the contribution of general aviation to the gross provincial product of the Province of Ontario in the year 1980 will be \$800 million. This contribution will increase beyond 1980 proportionately to the increase in growth of general aviation movements in subsequent years.

General aviation aircraft constitutes 98% of the Canadian civil aviation fleet. Aircraft having a gross weight under 12,500 pounds represents 96% of the general aviation fleet. During the period 1963 to 1973, the number of general aviation aircraft increased from 6,000 to 14,000 aircraft. It is estimated that by the year 1980 there will be 18,000 general aviation aircraft.

General aviation aircraft provide air transportation services to many communities which would not otherwise have any air transportation service. General aviation is used extensively by business and industry, by private individuals for personal transportation and for recreational purposes as well. It is to general aviation that airlines must look for future flight crews.

### **THE PRESENT STATE OF GENERAL AVIATION IN THE TORONTO AREA**

As noted previously, local general aviation movements have been discouraged at Malton. This policy is to continue into the future as indicated by the substantial reduction in the number of general aviation aircraft movements at Malton forecasted for the period 1971 to the year 2000. It has been mentioned that most itinerant general aviation aircraft movements are prohibited at Malton during scheduled peak hours. The testimony of witnesses

engaged or interested in general aviation, who appeared before the Commission, indicated that on the whole general aviation would prefer not to fly into or from Malton but certain circumstances dictate that Malton be used. Malton is the only airport in the Toronto area which provides instrument landing system facilities. Malton is the only airport in the area which provides continuous Canada Customs and Immigration services on a 24-hour basis. Malton is the only airport where an office is maintained for instrument flight inspectors, as result, all instrument rated pilots must take their semi-annual and annual test flights to and from Malton.

The Toronto area has no Class II or medium sized airport for the handling of general aviation aircraft of average twin-engine type with required runway length and supporting facilities to permit all weather flying.

No two general aviation airports in the Toronto area are operated by the same authority, as a consequence, there is little co-ordination between them. The future of many of the general aviation airports in the Toronto area is in doubt.

The present general aviation airports in the Toronto area are the Toronto Island Airport, the King Airport, the Maple Airport, the Buttonville Airport and the Markham Airport. There is an airport located at Downsview, Ontario, but its use is restricted to military purposes with the exception of permitted use by deHavilland.

The Toronto Island Airport suffers from both a lack of instrument landing facilities and a convenient mode of ground access. It has not received much financial support for the improvement of its facilities. There are approximately 170,000 to 200,000 annual movements at this airport. It is used for business, training, travel and recreational purposes.

The King Airport is primarily used as a helicopter airport and consideration is being given to closing it to fixed-wing aircraft.

The Maple Airport is privately owned and operated. However, it is operated on leased land. It is presently used for recreational purposes, although, some training does take place.

Buttonville Airport is used for training, recreation, travel and some business purposes. It is presently at capacity, however there are plans for future expansion. In order to enable the plans for



expansion to be implemented, there must be a change in certain surrounding land use. This has encountered local opposition.

The Markham Airport is privately owned and operated. There are approximately 30,000 annual movements at this airport. It is used for light aircraft and some training. If the proposed Pickering Airport is opened, it is planned that the Markham Airport will be closed.

It should be noted that there is no general aviation airport to serve the western limits of the Toronto Metroplex.

There is some discussion that the Toronto Island Airport will be closed. If this does occur, the existing general aviation airports in the area cannot accommodate present movements of that airport. If the Toronto Island Airport is developed as a STOLport and reaches a substantial rate of activity, the Ministry of Transport, Canada, predicts that general aviation will have to move from the Island Airport as general aviation operations will not be compatible with a STOL operation. In such an event, the question arises as to where the present general aviation movements at the Island Airport will be accommodated. It may be more economically beneficial to the owners of private airports to put their land to another use. The need to expand general aviation airports is being met by opposition similar to that encountered in the extension of major airports.

It has come to the attention of the Commission that the plight of the young person who wishes to take the required training for a career as a commercial pilot is most difficult. At some of the existing flying schools, there is a shortage of trained instructors or a shortage of aircraft or both. There is no institution serving the central Ontario area where a student can take a concentrated programme to obtain his commercial pilot's licence. There is a good deal of inter-dependence among the respective roles of the flight crew, air traffic controller, ground crew and even the flight attendants or cabin crew. It would appear desirable that an institution be established in the central Ontario area for those persons seeking careers in the air transportation system. Such an institution should be staffed by personnel that have been engaged in the daily problems of the air transportation system. Such an institution would not only provide better training opportunities for students in their chosen career but also would make them more aware of the role played by all persons engaged in the air transportation system.

The air transportation system would benefit from such an institution as well as the student.

### **DISTURBANCE FROM NOISE OF GENERAL AVIATION OPERATIONS**

There was evidence at the Malton Hearing by a community group that it was experiencing disturbance from aircraft operations from business jets.

The number of business jets estimated to be operating in the year 1980 is about double the present number of such aircraft, and it is predicted that there will be a 500% increase in the number of such aircraft operating in 1985 over the present number. More than 80% of the present business jet fleet do not meet the noise standards of FAR 36. There should be no problem in respect to newly produced aircraft of older model types as they generally exceed a weight of 12,500 pounds and would be subject to the noise standards of FAR 36, as such aircraft are generally manufactured in the United States. However, a retrofit programme would be required to reduce the noise levels of the present general aviation jet fleet for it to meet the standards of FAR 36.

The United States is addressing itself to the noise problem associated with the operation of propeller driven small airplanes. On 9 October, 1973, the FAA issued Notice of Proposed Rule Making 73-26, which would limit the noise level of newly designed propeller driven small airplanes as a requirement for the issuance of a type certificate.

### **COMMENT**

There are a number of matters which appear to the Commission to merit further consideration.

In order to properly serve the air transportation needs of the central Ontario market, the air transportation needs of the central Ontario market should be considered as a whole. A major airport or airports, must be considered with general aviation airports as forming part of an air transportation system to serve the central Ontario market.

It appears to the Commission that any such system should include three classes of airports. A Class I or major airport such as

Malton and the proposed Pickering Airport would have runways and sophisticated air traffic control equipment facilities. A Class II or medium size airport would have all facilities required for general aviation aircraft of that type, the average twin-engine business aircraft. Such an airport should have runways of 4,000 to 4,500 feet in length. An air traffic control tower would be provided at such an airport together with all air traffic control equipment and ground facilities necessary to permit aircraft of that size to fly in all weather conditions and at night. In addition, personnel would be located at the site for necessary inspection, and custom and immigration services would be provided on a 24-hour basis. A Class III or small utility airport would be provided for light aircraft. Runways suitable to the needs of such aircraft would be provided together with necessary support facilities. Such an airport would not require an air traffic control tower but would require immigration and custom on a 24-hour basis.

It should be expected that these airports would not be operated at a loss. Landing fees and other service charges should be commensurate with the service provided.

It appears to the Commission that the Government of Canada should address itself to the question of establishing noise certification standards for propeller driven aircraft. By keeping aircraft noise within the boundaries of the airport, accommodation will be reached between the general aviation airport and its neighbours which is so vital to a healthy transportation system.

The establishment of a three class airport system in itself will not be sufficient for a vigorous expanding air transportation system to serve the central Ontario market. The operations and activities at each airport must be co-ordinated by a single authority if the most efficient traffic flow, economical and maximum use of such facilities is to be achieved and future congestion and conflicts avoided.

## 14. Short Take-Off and Landing Aircraft (STOL)

The Commission heard evidence as to a particular class of aircraft being developed to serve the short-haul market. Included in this class of aircraft are aircraft having reduced take-off and landing capability (RTOL), vertical take-off and landing aircraft (VTOL), quiet take-off and landing capabilities (QTOL) and short take-off and landing capabilities (STOL).

The RTOL aircraft is a fixed-wing aircraft development and involves a lift through engine thrust deflection and vertically-operating direct lift engines such as fan-and-wing or fan-and-fuselage.

The VTOL is a rotary aircraft and derives its vertical lift capability from rotors or tilting propellers regardless of the means for developing forward propulsion.

The QTOL aircraft will be powered by high by-pass turbo fanned engines and will have ability to land and take-off from a 4,000 foot runway.

The STOL aircraft is based upon a powered lift principal enabling the aircraft to operate from a 2,000 foot runway with steep approach capabilities.

Not all these concepts will become operational, nor will there be a need for all of them. Performance, economic considerations, passenger acceptability, social acceptability and technological developments are some of the factors which will govern which concepts become operational.

## **STOL AIRCRAFT**

Three of the main aircraft under development with short take-off and landing capabilities are the deHavilland DHC-7, the WFW Fokker BSW-614, and the Hawker Siddeley HS-146.

The DHC-7 will have the capability of operating from a runway 2,000 feet in length. It will be capable of making a 6 degree approach. The planned passenger capacity is 49.

Planning and development are also taking place in respect to a Quiet Short-Haul aircraft known as QSH. This plane is being designed to operate from runways of 4,000 feet at a distance of under 1,000 miles and with a seating capacity of 100 to 150 passengers. This aircraft is regarded as being a second generation class of STOL aircraft, although a strict interpretation of a STOL aircraft is an aircraft that has the capability of operating from a runway 2,000 feet in length. It is planned to introduce this craft in the early 1980's.

## **THE STOL MARKET**

Various predictions have been made in respect to the role of a STOL operation in the air transportation system. It is predicted that the STOL market will consist of passengers diverted from conventional take-off and landing aircraft, from rail transportation, from bus transportation and from the private automobile. In addition, it is estimated that it will attract passengers in its own right. The basis for predicting that a STOL operation will attract passengers from various modes of ground transportation is the comparatively short trip time offered by STOL to the same destination points as ground vehicles. The underlying premise in the assumption that STOL operation will divert passengers from conventional take-off and landing aircraft is that a STOL operation will, on a total trip time basis, provide a faster service than conventional aircraft in that it will operate from one downtown airport to another downtown airport unlike conventional aircraft that operate from airports 15 or more miles away from a city centre.

It is also suggested that a STOL operation is an alternative to providing costly ground transportation to outlying communities. In addition, it would provide communication with remote areas where alternative modes of transportation are not feasible. It is also



suggested that a STOL operation would complement an existing conventional aircraft operation in that it is a means of providing an economic operation in the non-peak hours. With passengers having an alternative through a STOL operation to fly at other times during the day, there would be some levelling out of peak hour demand periods.

### **CONSTRAINTS TO A STOL OPERATION**

There are a number of constraints to a STOL operation such as the capacity of a STOL vehicle, the capital investment to establish STOLports, market demand and operational costs.

Operational tests of the DHC-7 prototype, a 49 passenger aircraft, are planned for the fall of 1974. Until the DHC-7 is ready for service, it is planned that service will be provided by the DHC-6 aircraft which has a passenger capacity of 11. Once the DHC-7 is in operation, it will be used in association with the DHC-6 to form a secondary air transportation service.

There are few airports, other than existing major airports, that have suitable existing facilities for a STOL operation. Capital investment will be required to make those airports adaptable for a STOL operation. This will involve expenditure for terminal buildings and other necessary buildings, air traffic control equipment, approach and ground aid equipment, ground maintenance and emergency equipment and other support service equipment. In addition, car parks will have to be established which will probably involve land acquisition costs as well as the cost of construction of a multi-level building. If there are no existing airports in the regions to be served, or if an existing airport is not adaptable to a STOL operation, capital costs will have to be incurred for land acquisition, runway construction and possibly for ground access to the STOLport.

It is estimated that in a distance up to 100 miles a STOL operation will capture 1% of the market and 4% to 5% of the market travelling a distance of 120 to 240 miles and just under 2% of the market travelling a distance of 200 to 360 miles. For distances up to 300 miles, STOL will be competing for passengers with rail, bus and private automobile. It will be a question of individual preference as to whether a traveller will abandon the convenience afforded to him by his own automobile, in so far as

flexibility in the time to start and return from his trip as well as having his automobile at his disposal at his place of destination. This in part will be influenced by the schedules offered by a STOL operation, the place of destination of the STOL operation as compared to the desired destination of the traveller, the overall trip time and comfort. Most of these factors will influence the traveller's choice as to the alternatives offered by bus and rail.

The Commission notes that the forecast of the Ministry of Transport, Canada, in relation to the penetration of the short-haul market is somewhat higher than the above mentioned figures.

It is estimated that by 1982 a STOL operation will divert 3.2% of the short-haul passengers from conventional short-haul aircraft market and will divert 4.2% of the short-haul conventional aircraft passengers by 1990. One of the underlying assumptions in this forecast is that the total trip time offered by a STOL operation will be shorter than that offered by a conventional aircraft operation. This will depend upon whether the traveller in fact considers an air trip as a single period of time from the time he leaves his home until the time he reaches his ultimate destination or whether he regards the trip as being composed of separate time segments, the time from his home to the airport, the actual flight time, and the time from the airport of landing to his destination, and is influenced in making his choice by the time factor involved in each segment. While the total trip time will be shorter by STOL, the actual air time will be shorter by conventional aircraft. It should be noted that Air Canada testified that in its experience only 25% of the passengers travelling between Toronto and Montreal have a downtown destination.

A STOL operation offers no economies in operation from that of a conventional aircraft operation over 200 miles. While the unit energy cost, based upon a system energy cost, more fully discussed under the heading 'Energy Crisis', is the same for a STOL aircraft and that of a conventional aircraft up to 200 miles, there is a considerable penalty in so far as a STOL aircraft is concerned at distances over 200 miles. The estimated unit energy cost of a STOL aircraft flying between Toronto and Montreal is 5 while the estimated energy cost for a DC-9 flying the same distance is 3.5.

The number of STOL airports that can be established will be limited to the extent that there is a population to support a STOL

operation, unless the Government proposes to subsidize the operation. In addition to the initial capital investment, there will be continued operating expenses for skilled personnel to service the aircraft and for air traffic control as well as other personnel.

The general consensus in the United States, Canada, Britain and France and witnesses on behalf of the Ministry of Transport, Canada, is that STOL will make an insignificant contribution to meeting the great demands facing the air transportation system by the forecasted growth of passengers between major cities already served by conventional aircraft. There is also a general consensus that STOL has an important part to play in the air transportation system, that is, providing support or feeder service between major airports and regions where traffic cannot support a major airport, and bringing fast and convenient transportation to remote areas.

### **A STOLPORT FOR TORONTO**

It was suggested that the Toronto Island Airport is appropriate for the introduction of a STOL operation in the Toronto area.

The existing runways at the Toronto Island Airport would be sufficient for STOL operation. In addition, there are hangars and certain other facilities available. However, capital expenditures would be required for air traffic control equipment, approach and ground aid equipment, ground maintenance and emergency equipment, terminal buildings and other required buildings. Equipment would also have to be purchased for support services. Land would have to be acquired for a car park and a multi-level building would have to be constructed. It is estimated, in 1973 dollars, that the initial capital expenditure would total \$14,500,000. Further capital expenditure would be required as the STOL operation expands.

The stack of the Hearn Generating Station, near the Toronto Island Airport, is an approach obstacle which precludes the use of a conventional instrument landing system; so a microwave landing system with a 6 degree approach is required. This is too steep an approach for most general aviation aircraft now using the airport. This factor together with safety requirements and passenger acceptance of a STOL operation would make a STOL operation and a general aviation operation incompatible for the Toronto Island Airport. Accordingly, the present general aviation operations would have to locate elsewhere.

There would be some conflict, from an air traffic control point of view, from operations on the 08 runway at the Island Airport with the 05/23 runway at Malton Airport as these runways would be operated under similar weather conditions. If a high level of activity is developed for a STOL operation at the Island Airport it could compromise the preferential runway system presently employed at Malton.

One of the major constraints to the development of a high level STOL activity at the Toronto Island Airport is the lack of good access between the Island and the mainland. At present, access is provided by means of watercraft. To overcome this deterrent to acceptance of a STOL service, it will be necessary to construct a bridge to link the Island and the mainland.

### **STOL AND NOISE DISTURBANCE**

A number of community noise studies have been conducted in the United States which showed the same general trend; relatively low noise levels in the early hours of the morning increasing quite rapidly during the morning rush hours and then a levelling out until the back home rush hours and then a rapid falling during the late night period. The average A-weighted decibel sound level rarely exceeded 65 dB(A), and at night it fell as low as 35 dB(A). Current research has shown that there will be an appreciable disruption of contextual speech as aircraft flyovers exceed 75 dB(A) which is approximately equivalent to 88 PNdB.

The currently discussed noise level of a STOL aircraft at 500 feet is 95 PNdB which is roughly equivalent to 82 dB(A) at 500 feet. It is assumed that the noise level from a STOL aircraft will reduce at the rate of about 8 dB(A) per doubling of distance. Accordingly, STOL flyovers at altitudes which are greater than 2,000 feet will probably not intrude in most areas during the daytime but will exceed the average levels at night. Altitudes greater than 5,000 feet would be necessary to make STOL flyovers equivalent to median noise levels at night.

The noise levels from a STOL operation at an existing major airport will be enveloped in the noise levels of other aircraft flying into and from that airport, unless the STOL aircraft has some types of noise to which the community is not presently exposed. However, major en route noise problems may develop particularly when



flying over areas with low ambient noise levels, or areas which previously had no or very limited exposure to aircraft noise of any kind. This will be especially so if the aircraft fly at low speed and at low cruising altitude.

The establishment of a STOL operation in areas other than major airport areas will expose the surrounding population to a noise not previously experienced to a significant degree. Strong adverse reactions should be expected if the resulting maximum noise levels or characteristics of the noise or the total noise exposure is in excess of that which the population regards as acceptable or at least tolerable. The degree of acceptance will vary depending upon the ambient noise levels in the area where the STOL airport is located. The level of acceptability will be much lower if the airport operates out of, or very near, a residential area than operations near an industrial or commercial area where the ambient noise level will be considerably higher than a residential area. If care is taken to establish acceptable noise levels for people living at the STOL airport boundary, the noise levels should decrease at locations removed from the airport boundary. This can only be done in part by the establishment of maximum noise levels for STOL operations at the airport boundary.

The FAA in the United States is addressing itself to this problem. It issued Advance Notice of Proposed Rule Making, 73-32, on December 28, 1973, in respect to noise standards for short-haul aircraft. As STOL aircraft will not just be operating from major airports, the current thinking of the FAA is that noise standards for a STOL aircraft to meet at the airport boundary will not be sufficient but that the standards must be related to the total STOL system. This will require a study of not only the actual noise generated by the aircraft, but the types of airports into which it will be flying as well as its en route flight profile. The main concern of the FAA is that unless serious consideration is given to the noise problems which will be generated by a STOL system, the benefits to be offered by a STOL operation will be jeopardized by adverse community reaction.



## COMMENT

While STOL will not have much impact in solving the problem confronting the air transportation system by the forecasted growth in passengers, it does have an important role to play in the air transportation system. STOL can provide a support or feeder service to major airports from areas which cannot support a major airport and can provide a good communication service for remote areas. In planning for a STOL system, care must be exercised to ensure an accommodation between STOL and its airport neighbours and its en route neighbours through the establishment of standards of acceptable levels of noise based upon a total STOL system rather than based upon the noise characteristics of the STOL aircraft.

DeHavilland Aircraft of Canada, Limited has established a good reputation for Canada as a manufacturer of small aircraft, such as the Twin Otter, single Otter, Beaver, Caribou and Buffalo. It is a world leader in this market. The Government of Canada has recently purchased deHavilland Aircraft of Canada, Limited. This will not only ensure that our talented aircraft builders will continue to maintain Canada's reputation as a builder of small aircraft, but they will be able to increase that esteem with the production of the DHC-7 and the subsequent production of the QSH.

## 15. The Two-Airport System

If a decision is made to proceed with the proposed Pickering Airport, the Toronto Metroplex will have a two-airport system. This will not make the Toronto Metroplex unique. Many of the great metropolitan centres of the world have more than one airport. New York has three airports, La Guardia Airport, John F. Kennedy International Airport and the Newark Airport. Washington has three airports, Washington National Airport, Dulles International Airport and the Baltimore-Washington International Airport. Chicago has two airports, O'Hare Field and Midway Airport. London has three airports, Heathrow, Gatwick and Stansted. For many years, Paris has been serviced by two airports, Le Bourget Airport and Orly Airport. Le Bourget Airport is gradually being phased out as a commercial carrier airport, being replaced by the newly opened Charles DeGaulle Airport. For many years, Berlin has had two airports, Tempelhof and Tegel. Although consideration is being given at present to closing the Tempelhof Airport once the new Tegel Airport is open, there is opinion that even if Tempelhof is closed, it will only be a relatively temporary closing due to the fact that projected future growth will require that it eventually be re-opened.

There appears to be a general consensus among airport operators and planners that most large metropolitan centres in the future will be served by two and even three or four airports.

Where two airports have already been established to serve a large metropolitan area, a particular role has generally been assigned to each airport. International and long-haul flights to and from the New York and Washington areas operate basically from one airport. In the Paris Airport system, it is planned that long-haul international flights will operate from Charles DeGaulle Airport

and that domestic and short-haul international flights will operate from Orly Airport. In Berlin, long-haul international flights operate from Tegel Airport and domestic and short-haul international flights operate from Tempelhof Airport. However, in the London area, long-haul international traffic operates from all three airports, and domestic and short-haul international traffic operate from two of the three airports.

In 1971, the British Government announced that it would build another airport at Maplin to serve the London area. Once the new airport was established, the Stansted Airport would be phased out and the Heathrow and Gatwick Airports would be held at or below their 1980 levels of aircraft movements.

In 1965, the British Government made a decision that in order to meet the air transportation needs of the London area, another airport would have to be established or existing airports would have to be expanded. The Standsted Airport seemed to be the most appropriate airport to expand due to its proximity to London; so it was decided that the Standsted Airport would be expanded. The decision to expand the Standsted Airport was followed by an outcry of protest from some segments of the population residing in the area. This led to the appointment of a Royal Commission to inquire into the question of an appropriate site for a new third international airport to serve the air transportation needs of the London market. Following the report of the Royal Commission, the Government in 1971 chose Maplin as the appropriate site for another airport to serve the London area.

To implement the decision, a considerable sum of money would have to be expended. In order to establish an airport at Maplin, land would have to be reclaimed from the sea, a new community would have to be established in close proximity to Maplin to house the people who would be working at Maplin and an expensive programme of highway and rail transportation would have to be undertaken in order to provide access between London and the airport which are 50 miles distant from each other. At the same time, the British Government was incurring substantial expenditure in the development, jointly with France, of the Concorde. It was estimated that substantial additional funds would have to be invested by both Governments for continued research and development of the Concorde.

The number of passengers using the London airport system has fallen in 1974 from that of 1973. This is attributed to the three day work week that was in force in the earlier part of the year. However, as the year progressed, the rate of decrease has diminished. Even though it is anticipated that 1974 will not be a good year for air travel, the British Airports Authority predicts that air travel will increase in Britain at the rate of 11% per annum.

During 1974, Britain is undergoing its most serious economic crisis since the end of the war. In addition, there have been demands from the public for the British Government to re-negotiate its terms of membership in the European Common Market. During the course of discussions between the Prime Minister of the United Kingdom and the President of France, in July, the British Government made an announcement that it would contribute substantial additional sums of money toward the development of the Concorde and that the Maplin Airport project was being abandoned. In abandoning the Maplin project, the Government stated that it did not feel that the forecasted growth of passengers would be reached and that new technology would reduce disturbance from aircraft operations at existing airports.

In its annual report, 1972/73, the British Airports Authority, which is charged with responsibility for the operation of the London airports, set out various consequences in the event that the Maplin project was abandoned. In respect to Heathrow, the report stated that further land would have to be acquired immediately for terminal space, including the removal of a large sewage works. The motorways and underground subway lines would have to be supplemented by a surface rail link. Even with this development, Heathrow would be at capacity by the mid-80's. In so far as Gatwick is concerned, it would be at capacity in the mid-80's and additional land would have to be acquired for runway and terminal facilities. It is estimated that 1,500 to 2,500 acres of land would have to be acquired for required facilities at Stansted once Gatwick and Heathrow Airports have reached capacity.

Shortly after the announcement of the British Government that the Maplin project was being abandoned, a letter was published in the London Times from the Chairman of the County Council in which the Stansted Airport is located. In his letter, he stated that the population in the area would not tolerate any



expansion of Standsted nor any increase in air movements or noise levels.

It was suggested in the evidence before the Commission that a second major airport was not required for the central Ontario market as the forecasted growth in passengers and traffic could be met by expanding regional airports. There was testimony before the Commission by Air Canada and Wardair Canada Limited that these companies operated charter flights from the London Ontario Airport and the Windsor Airport, respectively. Air Canada's charter flights from the London Airport are basically weekly in the winter time to service the inclusive tour charter field. The charter flights of Wardair Canada Limited from the Windsor Airport basically serve the Detroit, Michigan market. It should be noted that these flights originate from the southwestern Ontario region.

In order to conduct commercial carrier operations at a regional airport, substantial capital expenditure would be required for adequate runways, air traffic control and navigational facilities. In addition, there would be substantial operating expenses for personnel such as air traffic control, specialized aircraft mechanics as well as other personnel. The market does not exist in most regions to warrant these expenditures. As has been previously mentioned, under the topic "Forecasts", 90% of the present enplaned/deplaned passengers at Malton originate and terminate from the Toronto Metroplex and that in the year 2000 it is forecasted that 80% of the enplaned/deplaned passengers will be from the Toronto Metroplex.

In the opinion of the Commission, the expansion of regional airports to provide services, similar to airport services provided at major international airports, would be an unwarranted uneconomic duplication. It would not be a solution to the problem facing the air transportation system by the forecasted growth in the central Ontario market. The Commission is of the view that regional airports have an important role in the supply of passengers to major airports. This role should be encouraged and expanded. Such a policy would provide good air transportation services for regions that cannot support major airports and would contribute to a strong economic air transportation system.

There have been difficulties in operating a two-airport system. The Commission has mentioned some of these difficulties under the



heading "The Role of the Proposed Pickering Airport". The basic difficulty in the operation of a two-airport system has been caused by the opposition and lack of cooperation on the part of the air carriers. Air carriers are reluctant to incur the expense of a duplication of service and especially the economic penalty that results in the initial years following the opening of a second airport.

However, a question arises as to the real extent of the economic penalty which the airlines incur. If it were possible to meet the forecasted growth of traffic at an existing airport, the boundaries of the airport would have to be expanded. New terminals would have to be built. Some airlines would inevitably be required to incur the expense of moving from an existing terminal to a new terminal and all the expense which such a move entails, or incur the expense of acquiring additional space, and all the expense entailed by expanding their operations into areas formerly occupied by other airlines that have moved to the new terminal. In addition to the added expense for increased space and leasehold improvements for the new space, additional expenditures would have to be incurred by an airline for all other necessary equipment and personnel associated with an expansion of operations. Air Canada admitted that if it were possible to expand Malton to meet the forecasted increase in passengers, it would have to incur substantial capital expense for expanded operations. It estimated that the capital cost of such required facilities would be about \$17 Million.

Although Chicago has a two-airport system, it has for a number of years basically been a one-airport system. Most airlines have moved their operation from Midway Airport to O'Hare Field in order to minimize cost and to maintain their competitive position with other airlines operating from O'Hare Field. This development took place because the landing rights granted to airlines only specified Chicago and not a particular Chicago Airport. However, the Federal Aviation Administration of the United States is of the opinion that Midway will have to be re-activated if the Chicago Airport system is to meet the forecasted growth in the air transportation system for the area.

Mr. Thomas Sullivan, an internationally renowned Airport Planner with 30 years experience in the air transportation industry, and Mr. Paul Shaver, Director of Airport Planning for the Department of Transportation, City of Chicago, testified before the

Commission that there is no difficulty in operating a multi-airport system provided that each airport operates independently of the other as much as possible and so long as each airport is operated to meet the demands of the market.

It appears to the Commission that most of the major metropolitan areas of the world will have a multi-airport system. There should be no difficulty in operating a multi-airport system provided there is a careful assignment of flight sectors to each of the airports comprising the system, and a first class highway link is established between the airports. In assigning flight sectors to the respective airports, care must be taken to eliminate, as much as possible, the necessity for a passenger to travel between the two airports in order to make an interconnecting flight. Even with the greatest of care, economics will require some passengers to land at one airport in the system and to travel to the other airport in order to make a connecting flight. A first class highway facility between the two airports must be established to make possible the journey between the two airports in a reasonable length of time. The primary concern in the operation of a multi-airport system should be the need to meet the demands of the airport user rather than the demands of the air carriers. To ensure that these requirements are met, it appears to the Commission that an Airport Authority should be established entrusted with responsibility for seeing that the two airports operate in a proper manner to meet the demands of the public.

It is the Commission's view that in the past airports have tended to be operated for the convenience of the air carriers and not the travelling public. The Commission is also of the view that this trend has come to an end. There is no reason why airports should not be economically self-supporting and operated for passenger comfort.

## **16. The Role of the Proposed Pickering Airport**

The Commission heard evidence as to various roles that the proposed Pickering Airport could play in the central Ontario transportation system. After consideration of all the evidence, the Commission is of the opinion that the proper role for Pickering, to the year 2000, is for it to handle all international flights, (with the exception of flights to the United States, hereinafter called trans-border flights,) charter flights and pure freighter flights. In addition, provision will have to be made for some interconnecting domestic and trans-border short-haul flights.

The Commission is of the view that Malton and Pickering should operate independently of each other as much as is reasonably possible in order to avoid such situations as where a passenger lands at Pickering and then must make an interconnecting flight at Malton, or a passenger leaves Malton in the morning, where he has parked his car, and then returns to Pickering in the evening.

The Commission heard evidence that in the inclusive tour charter field, that is the buying of an airplane ticket, ground transportation and hotel accommodation, 25% to 30% of the passengers originate from points other than Toronto and Hamilton. The Commission also heard evidence that in respect to advance booking charter flights approximately 15% originate outside the Toronto-Hamilton market. Under the circumstances, domestic flights should be provided for these people at Pickering wherever it is reasonably economically feasible to do so.

Evidence was also adduced before the Commission that a substantial number of American residents, in the border states, prefer to fly to Malton for trans-Atlantic flights and Caribbean

flights in order to avoid delays which are experienced at airports in the United States, and also due to the fact that various economies are offered in Canada which are not available in the United States, such as lower airfare through advanced booking charter plan and special youth fares. In order to maintain this advantage, some interconnecting trans-border flights will be required at Pickering.

The Commission is also of the opinion that facilities for a STOL operation should be provided at Pickering. The STOL operation could provide a feeder service between Pickering and other regions of Ontario wherever it is economically feasible to establish a STOL operation.

This suggested role for Pickering Airport will provide some relief from disturbance caused by flight operations at Malton. The noisiest aircraft presently operating at Malton, the DC-8 and the 707, which are used in the international sector, will fly from the proposed Pickering Airport.

With the assignment of this role to the proposed Pickering Airport, Malton will be used for domestic and trans-border operations. The passenger trips in these segments will be basically of a business nature. Therefore, it is desirable that trans-border operations and domestic flights be confined to Malton which is nearer the business markets of Metropolitan Toronto than the proposed Pickering Airport.

In order to establish the proposed Pickering Airport as an international airport, it appears that existing bilateral agreements will have to be amended to specifically name the proposed Pickering Airport as the Toronto point on the route of the designated airline or airlines of a foreign country. The evidence did not indicate that the Ministry of Transport, Canada, appreciates the seriousness of this problem. The Commission heard evidence that in the Chicago area, for example, which is served by two airports, only one airport is used due to the fact that the flight routes merely designate "Chicago" as a point and do not designate a specific airport in Chicago. The Commission also learned of other difficulties which may be encountered in assigning air carriers to a specified airport. In one case where a large metropolitan area is served by two airports, the government of that country sought to reduce air movements at one of the airports by restricting any new carriers to the other airport. The government of a foreign carrier



which wished to have landing rights at the restricted airport took the position that if its carrier was not permitted to operate at the restricted airport, it would not allow the air carriers of the restricting nation to land at certain of its airports. As a consequence, the foreign air carrier was permitted to land at the restricted airport.

Difficulties can be encountered in assigning airlines or air traffic to a particular airport in a two major airport system, even where care has been exercised to prevent problems from arising, if any facet is overlooked. The Commission heard evidence that at the new Dallas/Fort Worth Airport an agreement was made between the Airport Board and the air carriers then flying into Love Field that on a date to be named by the Airport Board all carriers would move their operations to the new Dallas/Fort Worth Airport. Subsequent to this agreement, the United States Civil Aeronautics Board granted licences to new air carriers to land at Love Field. On the date designated by the Airport Board to relocate operations to the new Dallas/Fort Worth Airport from Love Field, all the air carriers who were party to the agreement to relocate moved their operations to the new airport. However, those air carriers who had been granted landing rights subsequent to the agreement, and who were not party to the agreement, refused to relocate their operations. With Love Field being closer to downtown Dallas than the Dallas/Fort Worth Airport, the new carriers had an advantage over the other carriers who had relocated at the new airport. In order to maintain their competitive position, some of the air carriers who had agreed to move their operations to the new airport have re-established part of their operations at Love Field. As a consequence, litigation has ensued between the Airport Board and the various carriers. As a further consequence, the new Dallas/Fort Worth Airport is not operating at the degree of activity anticipated.

If a decision is made to proceed with Pickering, any new bilateral agreements which grant routes to foreign carriers to Toronto should specifically designate Pickering, when it comes into operation, as the point on the Toronto route.

Amendments will have to be made to the licenses of Canadian carriers engaged in the international sector to restrict their international operations in the Toronto Metroplex to Pickering.



It is the Commission's understanding that air carriers operating at Malton, engaged in the international sector, lease space at Malton from the Ministry of Transport, but it is the responsibility of the individual carrier to effect its own leasehold improvements. Compensation will have to be paid to the air carriers for the undepreciated value of their leasehold improvements.

There may be an economic penalty to Canadian carriers who must provide duplicate services at both Malton and Pickering. Air Canada estimates that its start up cost to operate from Pickering will be between \$33 million and \$35 million. In addition, Air Canada estimates that the operating cost for operations at Pickering will initially be \$7 million a year. However, Air Canada also anticipates that as activity increases at Pickering, the added operating costs will gradually diminish and eventually vanish due to the fact that additional operating costs by way of staff, equipment, leased space and leasehold improvements would have to be provided at Malton to meet future needs as growth develops if there was no Pickering.

It appears to the Commission that it would be helpful if an agreement was made with all the air carriers engaged in the international sector whereby they agree to operate from Pickering, if it is opened, on a date to be specified.

The Commission is of the view that provision will have to be made at Pickering for that portion of general aviation which by its nature requires the facilities only offered at a major airport, as more fully discussed under the heading "General Aviation".

The Commission is of the opinion that there should be no partial or limited opening of the proposed Pickering Airport and that the airport should not open until such time as proper permanent terminals and other structures have been completed and all airport facilities are functionally operational, as planned, and all necessary ground access to and from the airport has been established and is in full operation. Any earlier opening, having regard to the present attitude of the general public toward the airport, would result in a most adverse attitudinal response on behalf of the general public which would take many, many years to overcome. The Commission is also of the opinion that if a decision is made to proceed with the proposed Pickering Airport, it will take at least 8

to 10 years from the date of that decision to plan and construct all necessary airport facilities and ground access.



## 17. Off-Site Terminals

The evidence which the Commission heard suggests that there are a number of ways to utilize roadways in dealing with the movement of passengers, baggage and cargo, both to and from the proposed airport at Pickering, as well as between Malton Airport and the proposed Pickering Airport.

These could generally be described as providing on the one hand a number of terminals within Metropolitan Toronto to which passengers and baggage would be brought, ticketed and processed, and from which both would then be moved to the respective airports. Various refinements of this method of dealing with passengers and baggage were suggested such as having anywhere from 1 to 18 different terminals for such purposes. In addition, there were variations in procedure as to the collection of passengers, ticketing and so forth suggested.

On the other hand, as an alternative to the above method of dealing with passengers and baggage, it was suggested that a highspeed transportation system be established whereby passengers and baggage could, by recognized routes, move between the two airports and to and from the airports to various points in the Toronto Metoroplex area.

The Commission is of the view that in the light of the tremendous number of people to be moved, that the alternative last mentioned is the most appropriate. Existing transportation facilities should be utilized and where they terminate, in the case of the subways for example, there should be interconnections of highspeed buses or rapid transit in order to connect the existing lines with the airport. Where such facilities such as subways do not exist, the Commission is of the view that there should be established certain special highspeed bus routes to enable the movement

of passengers and baggage to and from the airport. This is more fully discussed under the heading "Ground Access to Airports".

However, the Commission is of the view that at these various pick-up stations, there should be established extensive parking facilities, so that a large number of private motor cars may be parked at each of them. This will result in the removal of a great deal of private motor vehicle traffic from the roads leading to and from the airports and increase passenger service and the quality of it.

There are also at the present time various rail lines which traverse the Toronto Metroplex area and which could be used to convey passengers and baggage to the airports. One of the main railways traverses the proposed Pickering Airport site itself. A go-train system similar to the present system operated by the Province of Ontario could be established. If such a system is established, there should also be established at its various stations large and extensive parking facilities.

As to whether or not it is desirable that there should be a downtown terminal or terminals established to service the Toronto International Airport at Malton or Pickering, or both, for the ticketing and processing of passengers and baggage, the Commission is of the view that these should not be established. The reason for this is that this involves problems in ticketing, custom and immigration, health and security, particularly in relation to international flights, which are all very costly and which make processing at downtown terminals impractical and undesirable. They are duplications and are meaningless. Experience in other places in the world where such facilities have been established have been failures.



## 18. Airport Zoning and Compensation

Airports have major effects beyond their boundaries. One area in which these effects are felt involves the regulation of the use to which may be put privately owned land bordering an airport.

### A. ZONING REGULATIONS

There are at least two reasons why zoning regulations are necessary. The first involves the safe navigation of aircraft during take-off and landing. The technique which has been used in Canada is the zoning regulations under the *Aeronautics Act*, R.S.C. 1970, c. A-3, section 6(i) (j) which reads as follows:

“6. (i) Subject to the approval of the Governor in Council, the Minister may make regulations to control and regulate air navigation over Canada, including the territorial sea of Canada and all waters on the landward side thereof, and the conditions under which aircraft registered in Canada may be operated over the high seas or any territory not within Canada, and, without restricting the generality of the foregoing, may make regulations with respect to

(j) the height, use and location of buildings, structures, and objects, including objects of natural growth, situated on lands adjacent to or in the vicinity of airports, for purposes relating to navigation of aircraft and use and operation of airports, and including, for such purposes, regulations restricting, regulating or prohibiting the doing of anything or the suffering of anything to be done on such lands, or the construction or use of any such building, structure or object;”

Authority for the Parliament of Canada to make such regulations with respect to land use, was confirmed in the Supreme Court of Canada in the case of *Henry Johannsen v. The Municipality of*

*West Paul*<sup>1</sup>. The Court held, in that case, that the subject of air navigation was a matter of national interest and importance and therefore fell within the “peace, order and good government clause” of section 91 of the *B.N.A. Act*. As a result of that decision, the Government of Canada entered into the field of land use control under its aeronautics power and introduced legislation to regulate activities on lands adjacent to airports. In 1952 the *Aeronautics Act* was amended to authorize the Minister of Transport, Canada, with the approval of Government in Council, to make regulations specifically in respect to the classes of subject matter as above set out in section 6 (i) (j) of the *Aeronautics Act*. The making of such regulations is subject to the following conditions:

- (a) a “Zoning Regulation” must be published in two successive issues of at least two newspapers serving the area where the airport is located;<sup>2</sup>
- (b) a plan and description of the lands affected by the zoning regulations signed and deposited in the same manner as the plan and description under section 9 of the *Expropriation Act*<sup>3</sup> together with a copy of the regulation to be deposited in the Registry Office;<sup>4</sup>
- (c) if the Regulation is amended, a copy of the amendment (but not a copy of a new plan) must be deposited and;<sup>5</sup>
- (d) every person whose property is injuriously affected by the operation of a zoning regulation is entitled to recover from the Crown, as compensation, the amount by which the property is decreased in value by the enactment of the regulations less an amount equal to any increase in value of the property that occurred after the claimant became the owner of the property and is attributable to the airport.<sup>6</sup> Such proceedings must be brought within two years after a copy of the Regulation is deposited in the Registry Office.<sup>7</sup>

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1 (1940) S.C.R. 292

2 section 6 (7)

3 section 4 of the *Expropriation Act*, R.S.C. 1970, 1st supplement C-I-16; section 43

4 S.O.R./53-129

5 S.O.R./55-330 to S.O.R./55-331 section 6 (9)

6 s. 6(1) S.O.R./53-129

7 s.s. 11

The current regulations only restrict the height of buildings and similar structures on the lands. There were a previous set of regulations which were made in 1953 in respect to the Malton Airport Zoning Regulations, but they were revoked in 1955.

Since 1953, nine airports in Ontario have been zoned by the Minister of Transport, Canada, Toronto Airport in 1953<sup>1</sup>, Windsor in 1956<sup>2</sup>, the Lakehead Airport in 1953<sup>3</sup>, Ottawa in 1964<sup>4</sup>, London in 1956<sup>5</sup>, Hamilton in 1967<sup>6</sup>, Sault St. Marie in 1969<sup>7</sup>, Sarnia and North Bay in 1971<sup>8,9</sup>.

The second reason for regulation involves the incompatibility of certain types of land uses with an airport operation on aircraft noise sensitivity grounds. Zoning regulation for this purpose has been considered by the Government of Canada and the Province of Ontario to be matter of provincial legislative authority, some of which has been delegated to the municipalities.

In the Province of Ontario, provincial control over development in the vicinity of airports has been adumbrated by way of policy statements. The first of these policy statements was in relation to the Toronto International Airport (Malton) by the statement of the Minister of Municipal Affairs re aircraft noise and is dated October 9, 1969. The responsible Minister has power under the *Planning Act*, R.S.O. 1970, c. 349 to approve official plans and their amendments and plans of subdivision. The exercise of these powers is to be guided by noise sensitivity zone plans and land use compatibility tables as described in the statement. The Minister also has power under section 32 of the *Planning Act* to make orders which have the same effect as municipal by-laws. These orders override any municipal by-laws.

The Governments of Canada and Ontario entered into an arrangement called an Annex of Understanding, dated March 1, 1972 (which is part of Exhibit 7) set out in Schedule "A" to this

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1 S.O.R./53-285

2 S.O.R./56-157

3 S.O.R./57-230

4 S.O.R./64-41

5 S.O.R./65-71

6 S.O.R./67-424

7 S.O.R./69-460

8 S.O.R./71-171

9 S.O.R./71-317

section. Under paragraphs three and four of such Annex of Understanding, the Government of Ontario has agreed to use its powers to ensure that the development of privately owned land exposed to 95 CNR contour or equivalent and above will be controlled to prevent development inconsistent with airport operations.

## **B. COMPENSATION FOR ZONING**

It is important to emphasize that to landowners in the vicinity of airports, both Federal and Provincial regulations in respect to land use have the same effect, namely, their land, as a result of such regulations, may be less valuable because of the restrictions on development.

The crucial difference between the Federal and Provincial land use regulations is that the Government of Canada under section 6(10) of the *Aeronautics Act*, must pay damages for economic loss measured by the decrease in value of the lands caused by such regulations, while the economic loss caused by Provincial land use regulations must be borne by the landowners.

Section 6(10) of the *Aeronautics Act* reads as follows:

- (10) Every person whose property is injuriously affected by the operation of a zoning regulation is entitled to recover from Her Majesty, as compensation, the amount, if any, by which the property was decreased in value by the enactment of the regulation, minus an amount equal to any increase in the value of the property that occurred after the claimant became the owner thereof and is attributable to the airport.

The payment of compensation by the Government of Canada for land use zoning, under the above section of the *Aeronautics Act*, is a significant departure in law from that relating to provincial and municipal zoning laws and by-laws, where no compensation is payable in the event of loss flowing from a change in zoning.

In Canada, there is no constitutional principle such as the one that the Commission understands exists in the United States requiring compensation to be paid (or the by-law quashed) where a particular zoning by-law is so restrictive of the usual rights of ownership that it constitutes a "taking" of property. Indeed in

*Belfast Corporation v. O.D. Cars Ltd*<sup>1</sup>, the House of Lords interpreted a provision of the constitution of Northern Ireland forbidding the taking of property without compensation in a very restrictive manner. Presumably, this is the law also in Canada and in the Province of Ontario.

There is a House of Lords authority<sup>2</sup> that there is no compensation for expropriation without express statutory provision. However, this does not mean that there is any constitutional prohibition or any inviolate principle at stake in enacting new provincial legislation providing for paying damages for economic loss caused by provincial or municipal land use zonings. The Government of Canada, by the amendments to the *Aeronautics Act* and the passing of regulations thereunder, is a precedent for such action.

The Province of Ontario should enact legislation providing for payment of damages for economic loss where private ownership has been reduced in value by virtue of zoning carried out for the public good. In fact, the Province of Ontario has already done so in certain areas, as for example, by the *Archaeological and Historic Sites Protection Act*, R.S.O. 1970, c. 26 as amended by *The Civil Rights Statute Law Amendment Act, 1971*, R.S.O. 1971, c.50, 5.8 which provides for compensation for any reduction in market value of land designated as an archaeological or historic site.<sup>3</sup>

Under the Annex of Understanding between the Government of Canada and the Province of Ontario dated March 1, 1972 (Schedule "A" to this section), the Government of Canada is to acquire outright about eighteen (18,000) thousand acres for the airport itself. This has been done.

Paragraph 4 of the Annex of Understanding indicates that "the Federal Government has agreed to assume financial responsibility for claims that may result from existing developed and operative uses being incompatible with the uses permitted" under the Province of Ontario regulations for land between the 95 CNR

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<sup>1</sup> (1960) H.L.

<sup>2</sup> *Sisters of Charity of Rockingham v R.*, (1922) 2 A.C.315; *Western Counties Ry. v Annapolis Ry.*, (1882) 7 App. Cas.178.

<sup>3</sup> A reference to the usual Ontario practice with regard to compensation for loss of property rights due to zoning by-laws, may be found in *Munro v. N.C.C.* (1965) 2 Ex. C.R. 579 at 593-97.



contour and the airport boundary. However, the Province of Ontario controls referred to in paragraph 3 of Annex of Understanding only mention the prevention of future incompatible development. Therefore, neither the Government of Canada nor the Province of Ontario is bound to pay anyone for economic loss occasioned by virtue of zoning limitation on the use of his land between the 95 CNR and the airport boundary.

While it only indirectly concerns the matters before this Commission, it is worthy of note that there has always been a reluctance to accept the idea that the Province of Ontario, by the exercise of its planning legislation and the municipalities by the exercise of delegated authority, should be able to take away the property rights of an individual for the benefit of the Province or the community as a whole without commensurate compensation. In the light of the present widespread use of zoning by the provinces and municipalities, for example, to "freeze" the use of land for some future public purpose, of which airport purposes is merely one, it is desirable that some equitable solution, by way of provincial legislation, should now be found. Surely an owner should not be deprived of the full and potential use of his own lands for the public good without compensation.<sup>1,2</sup> Surely a statutory right to compensation should be given.

### **C. ADDITIONAL LAND ACQUISITION AT SITE NEAR PICKERING**

If the proposed Pickering Airport is built, the Government of Canada should acquire additional lands. This should be done to avoid repeating the situation which now exists at Malton in respect to the problem of noise disturbance from aircraft operations. The Commission has noted in this chapter, under the heading "Noise Disturbance from Aircraft Operations", that the 28 NEF contour is too close to Claremont and Stouffville and perhaps some areas

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1 Compare the House of Lords case *Belfast Corporation v. O.D. Cars Ltd (supra)*, which says inherently there should be compensation paid when the Crown takes title or partial title to land.

2 As a practical matter, in relation to all the Province of Ontario and municipal zoning which subtracts from the title to the lands of an individual for the public good, it may be desirable that there should be statutory compensation paid under two broad categories, namely (1) for the economic loss suffered by the exercise of provincial or municipal land use controls, and (2) for all of the other damages suffered by an individual in addition to demonstrable economic loss.

comprising the Town of Markham. Under the same heading, the Commission also noted that it does not accept that the level of noise represented by a 28 or 30 NEF contour can be regarded as a level of noise which will be found tolerable by residents of those said communities who historically have been accustomed to a low level of background noise. The Commission suggests that the Government of Canada should offer to buy the lands of persons in those said communities who have concern in respect to the future use and enjoyment of their lands as result of future possible noise disturbance from aircraft operations. Those persons who do in fact sell their lands to the Government of Canada should have the right or option, in the contract of sale, to repurchase the lands from the Government of Canada at any time within six months after the date of sale. This would provide such persons with an opportunity to change their minds, after further consideration, if they wish to do so. An existing land owner would only be able to avail himself of this opportunity once. This proposal would not apply to future land owners.

**SCHEDULE "A" to AIRPORT  
ZONING AND COMPENSATION**

March 1, 1972

**Annex of Understanding**

1. The Governments of Canada and Ontario have agreed to the establishment of a major airport in Pickering Township in an area roughly between a line just north of Highway 7 in the south, north to the Uxbridge/Pickering Township boundary and between the Little Rouge Creek on the west and East Duffin Creek on the east. Each of our Governments is committed to carrying out certain actions in respect to this development. The extent of commitment of funds in any one year is subject to the necessary Parliamentary and legislative authorities being received by the respective governments.
2. The Federal Government will acquire through the Federal Expropriation Act an area of some 18,000 acres. Under this Act the Federal Government will register Notice of Intention to expropriate this land. The exact area to be acquired for airport operations will include all land within the 115 CNR (Composite Noise Rating) contour.
3. The Government of Ontario has agreed to act within the full extent of its legislative authority to ensure that lands exposed to 95 CNR contour or equivalent and above will be controlled to prevent development inconsistent with airport operations. The Government of Ontario has agreed to issue a Ministerial Order under Section 32 of the Planning Act, subject to item 4 below, establishing development controls on lands to which the statute is

applicable within the area between the CNR contour of 95 or its equivalent, for the final runway configuration for ultimate airport development, and the airport boundary. It will also recommend against local zoning changes or severances inconsistent with such development controls and will not approve any official plans, or plans of sub-divisions inconsistent with such development controls. The Government of Ontario will discuss with local municipalities the development or modification of official plans so as to seek to make them consistent with airport operations. When such consistency is achieved the Minister may withdraw direct provincial controls.

4. For land between the 95 CNR contour or equivalent, and the airport boundary, the Federal Government has agreed to assume financial responsibility for claims that may result from existing developed and operative uses being incompatible with the uses permitted under the development controls introduced under Section 3 above.
5. The Government of Ontario has agreed to provide basic services normally provided by the Province to the airport boundaries, subject to any Federal/Provincial sharing agreements now in force or which may be developed.
6. The Federal Government accepts the principle of its responsibility for meeting certain incremental costs uniquely attributable to services and facilities required by the airport but outside airport boundary as mutually agreed.
7. The Federal Government has agreed to assume financial responsibility for the relocation of certain services from the airport lands. The exact sums involved will be determined when the nature of the services dislocated has been established, and the extent to which such services could continue to be used, despite passing through airport property, has been determined.
8. The Federal Government has agreed that there will be a joint Federal/Provincial study of all transportation requirements to serve the airport and its related communities and an agreement will later be reached on an appropriate sharing of expenditures on transportation facilities. The Federal Government has recognized a particular interest in the provision of rapid transit facilities.
9. The Government of Ontario has agreed to acquire some 25,000 acres of land adjacent to the airport for the development of a new community proposed by the Toronto-Centred Region Plan, as modified to incorporate the new Northeast airport, and for transportation and service corridors associated with that Plan.
10. Through relevant Federal Statutes and programmes, now in force or to be developed, the Federal Government has agreed to contribute financially to the cost of land assembled by the Government of Ontario for the purposes stated in 9 above.
11. The Governments of Canada and Ontario have agreed to a joint study of potential use of the Island Airport.
12. The Governments of Canada and Ontario have agreed that the existing Federal/Provincial Committee should be continued to study cooperative aspects of implementation.

## 19. An Airport and Its Planning

Planning an airport in the Toronto Metroplex area only for the next ten years is not adequate. If the Toronto Metroplex and all other major regions in Canada are to prepare for air transportation in the 1980's, and beyond the horizon year 2000, it is necessary that all elements in the future national air system be developed compatibly. The steps necessary for long term airports and ground access must be taken now.

This means that the future air system in the Toronto Metroplex area to serve the central Ontario market must be defined as quickly as possible. Until this is done, provincial, municipal and communities cannot designate suitable land for access to the airports; manufacturers cannot design suitable ground vehicles; the carriers cannot plan suitable route structures; the Government of Canada cannot develop suitable air controls.

Legislation should be enacted now to achieve the optimum long-term system for the Toronto Metroplex area to serve the central Ontario market.

What is needed, now, is general Federal, Provincial, Municipal, industry and community agreement, and legislation at each appropriate level to implement a broad form of air transportation and ancillary ground facilities not only for the 1980's but for the long-term beyond 2000.

The Commission has considered and discussed the air transportation needs of the central Ontario market to the year 2000, as directed by the Order in Council. From to-day to the year 2000 is only a span of 26 years.

When Malton was opened in 1938 in the centre of a rural area, it was believed that it would remain indefinitely beyond any built up area. In the 36 years that have elapsed since its opening, Malton



is now facing the problem of capacity and has already established itself as an undesirable neighbour.

The substantial investment required for the establishment of a new airport dictates that the life of that airport must be for more than a 26 or 36 year period.

It seems appropriate to the Commission at this time to pause and reflect about such matters as the persons who use an airport, the nature of an airport, the basis for the situation in which most airports now find themselves and whether anything can be done in the future to prevent a repetition of the past.

One only needs to go to an airport to see the broad section of the community who avail themselves of the air transportation system. They range from the businessman; the tourist; the immigrant coming to Canada or returning to his native land for a visit; especially in August, the Maritimer returning to the east to see his family and to renew old acquaintances; the student who now travels extensively around the world. In short, one finds a mixture of people of varying ages, varying aspirations and from the various facets of society which make up the community in which one lives. Whether the reasonable demands of these people will be met is dependent upon whether our air transportation system is expanded to handle them either through the expansion of existing facilities or the creation of new facilities.

It is important to consider the effect of the air transportation system on the economic well-being of a community and the nation. Without a healthy economy, a community cannot build housing, it cannot meet the demands for other services such as parks, recreational areas, schools, and the many other services demanded from Governments. Our national economy must grow if our nation and the communities that compose it are to prosper. Our air transportation system which forms an integral part of our economy must also grow if the future economic potential of our country is to be realized. If constraints are placed on our air transportation system, it will have a serious negative impact on the nation's economic development at all levels.

As our population and overall economy grows, a larger portion of our total population will place a greater demand on the air transportation system for the transport of persons and goods. Our major airports will share in this growth and will provide the



communities which they serve with ever increasing benefits essential to their prosperity only if airport facilities are available in time to adequately accommodate the levels of traffic which demand for air service will generate. If a community does not provide the necessary facilities to accommodate the demand, commerce and industry will locate in communities which are prepared to provide the necessary facilities to meet such demand.

It should be noted that the air transportation system is the backbone of our national passenger transportation system, which is so vital in linking our vast areas together. It must be preserved and expanded.

The problems facing the expansion of Malton within its existing boundaries are not peculiar to Malton alone but are shared by most of the airports serving the major metropolitan areas of the world.

The question arises as to why the air transportation system finds itself in the situation which now confronts it. The introduction of the first generation jet aircraft followed by the second generation wide-bodied aircraft and the resulting tremendous growth in the air transportation system provided a great challenge to the air transportation system. There was no historical experience to which it could turn for assistance in coping with this challenge. As a consequence, appendages connected by long concourses have been added to existing inadequate terminal buildings. Parking lots were enlarged and new parking lots were created in areas of the airport which are not readily and conveniently accessible. Airspace and runway capacity have reached capacity resulting in untenable delays on take-off and landing. A trip to the airport has become a major chore, especially in the peak hour when airport destined traffic must compete with the demands placed on our road system by regional commuter traffic and recreational traffic. The relationship between the airport and its neighbours is bordering on a state of open warfare as result of noise disturbances from aircraft operations to the communities surrounding the airport.

There is a need for most of the major airports of the world to expand their boundaries, or in the alternative, to establish a second airport to enable the air transportation system to discharge its responsibilities to the community it serves. However, the action of opposition groups have prevented an expansion of the airport

boundaries and have prevented the establishment of new airports. This has led to attempts to increase the capacity of existing airports which are already incapable of meeting present demand, let alone any increase future demand. As a consequence, stop-gap measures have been introduced such as off-site terminals, dual lane runways, various forms of curfews, an inefficient preferential runway system and various noise abatement flight procedures. Longitudinal terminal buildings have been constructed with regard only for the accommodation of the greatest number of passengers on the minimum space available. Passengers are transferred from terminal buildings to waiting aircraft in remote parts of the airport by various vehicles which require not only a capital expenditure for their purchase but also require continual expenditure for their operation. The distance for a passenger between his parked automobile and the boarding gate has become a herculean challenge. The movement of vehicles and persons on the internal roadways of an airport has become, at times, complete disorganization. The result has been a substantial economic penalty to the air transportation system, a risk to the safety of the air passenger and a depressing nightmare to the individual and his family.

Those who oppose the expansion of an existing airport or the establishment of a second airport, for the most part, consist of persons with a wide range of sharply differing viewpoints.

People who declare war on airports often do not really have all the facts, nor weigh all the issues. They do not seem to understand the nature of people, where they live, how they live, and what they do with themselves and where and why and how often they move around nor how a community functions. They do not appreciate the specialized nature of the service performed by the air transportation system which is the rapid conveyance of goods and people over great distances. They overlook the enrichment to life which air transportation has bought. All the facets offered by the air transportation system add up to a way of life which the travelling public has not shown the slightest interest nor the slightest sign of giving up, and why should it?

There is a need for less hypocrisy in the approach to air transportation. There must be an acknowledgement of the fact that the airplane is the fastest, most economic and most convenient device for the movement of people and certain goods that has ever

been invented and that not only the preservation of the air transportation system, but the expansion of the air transportation system to continue to make it an efficient, economic and as convenient a mode of transportation as possible for all our citizens and cargo is a legitimate goal of Government.

An airport can be a good neighbour in a community, if properly planned well enough in advance.

An airport to be efficient must be located as close to the market which it is to serve as is reasonably feasible. The Toronto Metroplex is the envy of most of the great metropolitan centres of the world in that it has the opportunity to establish a second airport within 30 miles of its centre.

If a decision is made to proceed with the proposed Pickering Airport, there are two alternatives which must be considered. The airport can be planned to meet only the air transportation needs of the central Ontario market to the year 2000. The selection of this alternative incurs the risk that at some future time the boundaries of the airport will have to be expanded due to unforeseen factors which will take place between now and the year 2000, or beyond the year 2000, which were not taken into consideration or not possible to consider to-day. This will result in a revival of all the problems, economic, social and environmental, which confront the expansion of existing airports to-day. The other alternative is to develop now a master plan for the ultimate development of the new airport. This would provide an opportunity in the future to expand the various components that make up an airport, and even change their functions, as future changes develop, without the necessity of enlarging the airport boundaries. There is historical precedent and experience from which we can draw in planning an airport for the future. From past experience, we know that airspace, runways, taxi-ways, aprons, terminals, parking areas, internal roadways, and ground access to the airport are not independent functions but are integral and inseparable parts of a whole airport system. We also know that an accommodation must be established between an airport and its neighbours if a healthy and expanding air transportation system is to be achieved.

We have learned that in order to find an accommodation between an airport and its neighbours the noise from aircraft operations must be kept within the boundaries of the airport. In the

past, attempts to achieve this goal were made by forecasting the level of aircraft noise by means of the Composite Noise Rating system and Noise Number Index. Both of these efforts turned out to be unsuccessful because the growth in aircraft movements, the noise characteristics of new aircraft and the increase in the size and in the gross maximum weight of new aircraft could not be foreseen. The Commission has mentioned the weaknesses which it foresees in the application of the NEF system at Pickering.

There are a number of facts which we do know which should be considered in an attempt to keep the noise from aircraft operations within the boundaries of the airport. We know that the noise characteristics of future aircraft are not likely to exceed the noise characteristics of the noisiest aircraft flying to-day. We know that as other components of the jet engine are being quieted, other noises appear, such as core noise predominating. We know that an increase in aircraft movements causes an increase in the noise levels from aircraft operations. We know that aerodynamics will probably be a significant noise problem in the future. We know from past experience that future developments may produce noise characteristics which cannot now be contemplated. We also know that life styles do not remain constant but become more demanding with the passage of time which in turn affects a person's attitudinal response in respect to the level of noise which he will tolerate.

It appears to the Commission, that having regard to this foreknowledge, an appropriate approach to the problem is to first determine the maximum number of aircraft movements that can be accommodated in the airspace over and around the Pickering site by means of a computer simulation.

The next step is to draw noise contours based upon the assumption that all aircraft movements in that airspace will have the noise characteristics of a 707-320. The boundaries of the airport should then be drawn at the 95 EPNdB contour. With the 707-320 being representative of the noisiest aircraft presently flying, such a boundary should provide a greater degree of assurance, than present methods, that accommodation will be achieved and maintained between the airport and its neighbours when the airport reaches its ultimate stage of development. Of course, appropriate land use planning outside the airport boundaries will also be required.



The determination of the maximum number of aircraft movements that can be accommodated in the airspace above and around the Pickering site will be of invaluable assistance in the formulation of a master plan for the ultimate development of the airport site. Such a determination will tell us the maximum number of passengers that can be handled at the Pickering site, the maximum number of runways that will be required, the maximum area which will have to be set aside and safeguarded for ground access rights-of-way, the maximum number of parking areas, the maximum number of internal roadways and the maximum number of gates that can be made available for aircraft. This in turn will facilitate the planning of the airport in a manner that the processing of passengers, freight and the parking of automobiles will be as close as possible to the immediate vicinity of the appropriate aircraft and in the numbers necessary to support saturation aircraft schedules. The transfer of passengers and baggage between the aircraft and the automobile will be accomplished rapidly and efficiently with walking distances greatly less than at present.

Passenger terminals must be designed to afford the maximum convenience to the passenger with short walks from ticketing to the boarding gate for enplaning passengers and from the plane door to the baggage claim and service transportation for deplaning passengers. Terminals should no longer be designed to suit the dictates of the airlines. It should be possible for a passenger who has purchased his ticket prior to arriving at the airport terminal to check his baggage before entering the terminal door. On entering the terminal and approaching the ticketing and boarding pass processing areas, he should no longer have to join battle with others who are converging from all directions upon the processing clerks standing behind long open counters. He should be entitled to find a much more convenient system of processing such as the individual herring-bone processing system established at the international terminal at Heathrow Airport. During the wait for the departure of his aircraft, or between inter-connecting flights, there should be some area to which he may resort away from the hubbub of general terminal activity. There should be a variety of quality refreshment and restaurant facilities available to him to meet both the demands of his appetite and his pocket. No advantage should be taken of the



fact that he is a captive customer. There should also be a variety of service shops and retail shops to meet his needs.

On arrival at the airport, after an international flight, he should not be required to walk long distances with his cabin baggage to claim his other baggage and then walk with all his baggage to a central immigration and customs clearance area. Nor should he be required after obtaining clearance to plunge his way through a hoard of greeters. Baggage claim should be as close as possible to the aircraft gate as is planned by the uncomplicated baggage system for the new Tegel Airport. Customs and immigration should be decentralized. An ample supply of baggage carts should be made available to assist the air passenger in moving his baggage to and from the terminal.

A form of the semi-circular terminal buildings established at the new Dallas/Fort Worth Airport commends consideration. It was proposed to use such a concept at the proposed Maplin Airport, and it is proposed to use this concept for future terminals at the Charles DeGaulle Airport.

The Commission has noted under the heading "Ground Access" that all modes of ground transportation will be required in order to meet the needs of the forecasted number of passengers.

High speed multi-lane highways will have to be provided which will connect to the internal roadway system of the airport. The internal roadway system should pass in front of the terminal door to permit the passenger to be driven as close as possible to the aircraft gate.

Provisions should be made for a maximum band of land required for highway access not only to meet present needs but also future needs. By determining the maximum number of aircraft movements that can be accommodated at the Pickering site, and thereby the maximum number of passengers that can be handled at the Pickering site, the maximum band required for highways can be determined, set aside and protected, so that ground access does not become a problem in the future, as is the case in many major airports of the world. Highways can be developed within the band as growth demands. A limited number of interchanges will have to be provided, so that connection can be made with general purpose road networks to enable traffic to disperse in a variety of directions

to other parts of the region. In fixing the size of the band, consideration must be given to trips to the airport by greeters, well-wishers, sightseers, airport and airline employees, for business purposes or cargo purposes, and trips by “other persons” as well. The demands of airport destined highway trips will have to be considered with general road traffic in the area and the new traffic which will be generated by new urban areas following the development of the airport. An attempt was made to meet this problem in the Paris area by designating one lane of a multi-laned highway for the exclusive use of taxis, public limousines and buses. The experiment has not proven itself to be successful and has resulted in a sense of injustice by other users of the highways. Current plans are to abandon the exclusive lane. It should also be noted that reservation of one lane of a multi-lane highway for airport destined vehicles does not begin to tackle the problem. It may be necessary in order to ensure good highway access to the airport to establish toll roads. During peak hours non-airport destined trips could be charged a greater toll in order to maintain rapid access for airport destined trips.

Some of the factors which should be considered when planning for a transit system to the airport are:

1. It should be capable of being developed in phase with the expansion of the airport.
2. It should be capable of meeting the demands of a fully developed airport.
3. The initial system should be within the capability and availability of equipment and proven reliability and performance.
4. It should lend itself to proposed subsequent development or replacement without a break of service.
5. It should provide direct service to and from all destinations inside the airport with no change of mode and be capable of providing a frequency of service to each destination within the airport to meet demands and have the ability to operate economically at lower frequency during less busy periods.
6. It must provide an adequate and convenient storage of baggage.
7. It should complement facilities for boarding and disembarking at both the in-town terminals and airport terminals.

8. It must provide a high frequency rate of service, so that waiting times both at the in-town station and the airport station are minimal.

At some of the major airports, there are forms of transit and rail to the airport boundary where air passengers must change to another mode of transport in order to reach the terminal building. As a consequence, those systems have experienced a low level of use. It has also been the experience at all airports serviced by a transit system that if the time of the trip exceeds the time of the automobile trip, to any great extent, the automobile will be the overwhelming choice of mode of ground access to the airport.

Parking aprons adjacent to the terminals must be designed to handle the huge aircraft of the future.

Sufficient provision must be made by way of gates, warehouses and buildings required for freight and forwarders to meet the forecasted growth in air cargo. Air cargo would be allowed to operate freed of curfews.

Provision should be made for STOL services to operate to and from the airport with the STOL operation providing support or feeder service. Provision will have to be made for high performance general aviation aircraft movements until such time as economic circumstances and growth of such movements warrant the establishment of an exclusive general aviation airport with sophisticated air traffic control and ground navigational facilities.

The lands within the airport boundaries should not merely be limited to airport related activities. An opportunity should be afforded to the air traveller to seek some refuge from the hustle of airport activity. Under the topic "Environmental Aspects", the Commission has mentioned a number of buildings which are scattered throughout the site and which have an architectural historical significance to this area. Some of these buildings could be relocated on one site on the airport lands and refurbished. They then could be put to service as, restaurants and shops. Such a development would provide welcome relief to the air passenger who has a long wait between interconnecting flights or who has a delayed departure.

Through careful planning of the airport, including engineering and construction, many existing environmental features of a proposed airport site and the area outside its boundaries can be

protected and preserved. A separate drainage system can be installed for aircraft aprons, where the potential for fuel spillage is high. The effluent of such system can be specially treated before it enters into any neighbouring creek or stream. By this means, the quality of the existing water of a creek or stream can be preserved. Lands of an airport not required immediately for airport related facilities can be used in a number of ways. Lands that have been cleared for agricultural use can be leased for compatible farming operations. Existing wood lots, which will not interfere with flight operations, can be maintained as conservation areas. Runways can be located and flight paths established, subject to airside requirements, in such a manner as to minimize disruption to the lands within the airport boundaries and to the natural environment outside the airport boundaries. In this manner, noise disturbance to nearby conservation areas or a zoo can be minimized as much as possible. These are but a few of the examples of the ways that disruption to the environment can be minimized.

It is fortunate that the Province of Ontario plans to establish a new community adjacent to the airport site. The new community will provide housing that will be needed to sustain a properly phased build-up of workers for the airport and for those who will provide the services which the new airport families will need. Development of the new community must at least always equal the phased growth of the airport. A high standard of local services and amenities will have to be provided in this community to attract the level of population growth which the airport project as a whole will demand.

About a third of the jobs at an airport call for specific skills: air crew, maintenance engineers, air traffic controllers for which recruitment may be required at a national level. Many of the jobs at the airport and those in associated industries and local services will not be so specialized and can provide a range of job opportunities for people in some of the housing stressed areas of Metropolitan Toronto. This could mean that the traditional outward movement of people from the Metropolitan Toronto area in search of better housing need not, as in the past, involve long journeys to work in Metropolitan Toronto. Ancillary airport activities and services such



as hotels, freight forwarding, new industrial and commercial enterprises could benefit from being near an airport. The major improvements in the communications of the area and the general upswing in building and population growth could attract new industry and commerce. However, the new community must be planned in such a manner as to seek accommodation with the airport not only to the year 2000 but to the year in which the airport will develop to its maximum. This will be a novel experience from the present situation that now exists in which airports must seek accommodation with existing communities.

The time required for the planning and construction of an airport can take from 6 to 10 years. The new Dallas/Fort Worth Airport was constructed in 6 years. However, this was under ideal circumstances. There was no shortage of manpower, material and supplies, and there were no strikes, and of course, the area was not subject to a Canadian winter. But, in the words of the Executive Director of the Dallas/Fort Worth Airport, "We really had to push". It took 10 years from the date of the decision to build Charles deGaulle Airport to its opening date. Although the airport was opened 10 years after the decision to build, the problem of ground access to the airport and interconnecting ground access to Orly Airport has not been resolved. The problem of ground access to the Charles DeGaulle Airport has resulted in much criticism of the new airport. It was estimated that it would take 10 years to build the proposed Maplin Airport and related ground access.

The Commission has previously mentioned the problem of the existing mixed attitude in the minds of the general public as to the need for and the location of the proposed Pickering Airport. The Commission has also cautioned as to the dangers of an opening of the proposed Pickering Airport, if there is a decision to proceed, before all immediate permanent structures have been completed and the airport is fully operational, as planned, and efficient ground access has been established. As far as the actual airport is concerned, there are bound to be certain matters which will not operate as planned. However, all major items should be completely operational such as baggage carousels, any escalators, elevators, moving walkways, in general, all items that will materially affect the convenience of passengers. Past experience indicates that if an airport is opened before all flaws in these major items, including



access, have been resolved, an adverse attitudinal response will develop in the minds of the passengers that will take some time to overcome.

An airport system which is capable of being expanded to meet the continually growing needs of the central Ontario market is absolutely essential, not only for the well-being of the central Ontario region, but also for the well-being of the Province of Ontario as a whole.

As previously noted, 90% of the passengers now using Malton Airport are from the Toronto Metroplex. It is estimated that by the year 2000, 80% of the persons using the central Ontario air transportation system will be from the Toronto Metroplex.

The present trend toward a greater passenger occupancy of aircraft leaving and arriving at Malton, and the projected continuation of this trend will require a greater number of direct flights from Toronto Metroplex, if air transportation is to be operated in the most economic and convenient manner for the passenger. Also, the forecasted growth in air cargo which will continue to depend substantially on wide-bodied passenger aircraft for movement, will require that there be as many direct flights as possible to and from the Toronto Metroplex.

Many of the airports serving the major cities in the United States are facing saturation problems that cannot be overcome. An expanded central Ontario air transportation system offers the Toronto Metroplex the opportunity to become the gateway to the North American heartland.

There is a need now to acquaint the public with all the facts. Once the facts have been fully explained, the public will be able to satisfy itself as to the urgency of the problem.

There is an opportunity now to plan and build a new airport that will be efficient and adequate to meet the present and future needs of a healthy air transportation system which the central Ontario market requires. If care is taken, it can be planned in a manner that will make it convenient and enjoyable to the air passenger, that will make it a good neighbour which can live in a civilized manner in harmony with its environmental setting.

Canada has many good competent people. However, a sense of national pride should not deter efforts to obtain the contribution

of the best airport planners in the world. There is now no excuse for a repetition of the past.

## **20. An Airport Authority**

There is a world-wide trend towards the establishment of an Airport Commission, Board or Authority for the ownership, management, planning, and operation of an airport or airports. Such an Airport Authority may be charged with the responsibility of managing an airport serving a particular region, or its responsibility may extend to airports serving several regions.

An Airport Authority, Board or Commission has long been known in the United States for the financing, management and operation of airports. An Airport Authority has existed for many years in Berlin. Aéroport de Paris was established in 1945 for the management of airports in the Paris region. It now has responsibility for Orly Airport, Le Bourget Airport, and the newly opened Charles DeGaulle Airport. In 1965, the United Kingdom established the British Airports Authority to own and operate airports under its authority. Initially, the control of five airports which serve the London region and Scotland was vested in the British Airports Authority. Discussions are nearing completion to extend the control of the British Airports Authority to several more airports located in various regions in Scotland and England. On July 1, 1974, responsibility for the management, planning and operation of the Leonardo de Vinci Airport in Rome was separated from the Department of Transport of Italy and vested in a newly established Rome Airport Authority.

It appears to the Commission that there are many advantages to be gained by the separation of the planning, management and operation of airports from the other important responsibilities of the Ministry of Transport, Canada, in the air transportation system.

The Ministry of Transport, Canada, would be freed from the day to day problems associated with the development and operation of airports. It could concentrate on the development of a comprehensive balanced plan for a national aviation system which would include the development of rational service patterns, the development of air vehicles, the location of required airport service and airspace control all so vital for an efficient and economical national air transportation system. The Ministry would continue its vital functions of establishing standards for aerodromes and certifying aerodromes. It would continue to be responsible for the licensing of pilots and the registration of aircraft. It would continue to be responsible for safety in the air transportation system including the establishment of air navigation orders and regulations to govern operating practices and procedures. It would continue to be responsible for air traffic control procedures and the providing of air traffic control and navigational facilities. It would assume responsibility for the development of noise certification standards for aircraft and noise abatement flight procedures including all necessary testing before any such procedures are implemented. In addition, the Ministry of Transport, Canada, would assume a new function, that of the establishment of an annual budget to be met by the Airport Authority. There appears to the Commission to be no valid reason why our airports should be operated at a financial loss. Having regard to the substantial investment that has been made and will have to be made in our airports, they should produce a return on that investment.

The Airport Authority should be vested with authority for the planning, development, and management of the air transportation system serving the central Ontario market as a total system. This would include control over general aviation airports as well as major airports serving the region. It would be responsible for the efficient and economic co-ordination of these airports. At the major airports, which it would own, it would be responsible, subject to Ministry of Transport, Canada, certification standards, for the establishment of terminals, runways, taxi-ways, aprons, freight warehouses, parking areas, internal roadways and rapid transit lines, and all non-airport related activities conducted on the airport lands.

It would construct the passenger terminal, lease terminal space to the airlines and maintain control over the leasehold improvements effected to the leased space. While the Authority should cooperate with the airlines as much as possible, it must discharge its ultimate responsibility which should be convenience and consideration of passengers.

The Authority would be responsible to ensure that there is sufficient variety of quality restaurants and refreshment facilities to meet the varying tastes and financial situations of the passengers. It would be the responsibility of the Authority to ensure that no advantage is taken of the fact that a passenger is a captive customer. The Authority would be responsible for determining the other types of services that should be provided for the convenience of passengers and the variety of retail shops that should be established. The Authority would assume responsibility for establishing standards of furnishing of all leased space and standards of performance to be observed by all leaseholders.

The Authority would have responsibility for architectural control in the design of structures that would be erected on site by others, such as hangars of airlines, so that there is an architectural harmony in all structures erected on the airport land.

The Airport Authority must have authority over the control of public motor vehicle modes of transport to the airports. This will entail the granting of exclusive franchise to operators. Precedent has proven that unless an exclusive franchise is granted to a limousine service for the transport of passengers to and from the airport, there is no way of ensuring that there will be an adequate number of good quality vehicles to serve the passenger at a reasonable price, at all hours, to whatever destination the passenger wishes. The alternative to such a system is the unsatisfactory situation which now exists at Malton.

The Authority should also have power to grant an exclusive franchise to a bus operator. In this manner, the Authority can set standards for the type of vehicle in order to provide a comfortable and convenient ride to and from the airport which should encourage a greater use of bus transportation over that of present experience.

The decision as to the type of rapid transit system that will be chosen to provide access to the airport will have to be made by a



cooperative effort on the part of the Airport Authority and the Rapid Transit Authority, if public acceptance of the rapid transit system is to be achieved. In making a selection of a particular type of rapid transit system, care must be given to ensure that such a system is within the capability and availability of equipment and proven reliability and performance. Such a system must be capable of being developed in phase with the expansion of the airport, and of being integrated with the airport facilities.

Ultimate authority for selection of highway express routes to the airport, and the determination of the number and location of interchanges from those express routes will, of course, remain with the Province. But close cooperation between the Authority and the Province of Ontario will be essential.

In sum, the Airport Authority should have power to do anything which is calculated to facilitate the discharge of its duty, that is the development of an efficient and economic air transportation system to serve the central Ontario market and which will meet all reasonable demands for the transport of passengers and goods.

The skill in directing any great enterprise requires the blending of the talent of part-time outsiders, preferably a majority, and full-time insiders who do the actual management of the business. The part-time outsiders are represented by the Board of Directors. The Board of Directors should be responsible for establishing policy and broad guidelines. The Board of Directors should be composed of interested citizens who can bring an outward looking and emotionally semi-detached viewpoint to the resolution of the problems which will confront the Authority. The full-time insiders are represented by an Executive Management Board who can bring a practical inward looking and an emotionally dedicated expertise to the execution of the policy and guidelines established by the Board of Directors. The respective roles of the two boards should be harmonized but not confused.

After the Airport Authority has become accustomed to coping with the air transportation problems in the central Ontario system, its authority and control should be extended to other regions which depend upon the major airports in the central Ontario region for long-haul air transportation service. This will have several advantages. It will permit greater integration and coordination of the system as a total system. It will provide the new regions with the

benefit of the skills and expertise it has developed. It will provide a greater scope of opportunity for advancement to the full time employees of the Authority which will encourage the best people to join the employe of the Airport Authority. It will provide the new regions with a readily resource of expertise which would not otherwise be available to them.

In the past, the development of many great projects has been hampered by the lack of unanimity at the three levels of government due to the absence of a mechanism for effecting decisions without frustrating delays. There are good capable people in government, but they cannot be asked to accomplish great things with poor machinery. In the Toronto Metroplex, there is a multiplicity of regional and municipal governments which have demonstrated different approaches and attitudes towards the proposed new airport. It appears to the Commission that it will be an insurmountable task to build the proposed Pickering Airport if unanimity of all these regional and municipal governments must be obtained. It is encouraging to note the degree of cooperation that has prevailed between the Government of Canada and the Province of Ontario in respect to the proposed Pickering Airport as demonstrated by the publicly announced Annex of Understanding between the two Governments.

There is a tendency on the part of all governments to overlook the fact that they all derive their authority from the same source, that they all exist primarily to serve the public interest and all obtain their financial resources from the same source. The central Ontario transportation system is not just a regional asset, it is not just a provincial asset, but it is a national asset vital to the economic and social well-being of the entire country. This should be uppermost in the minds of all levels of government. If we are to avail ourselves of the present opportunity to preserve and expand the central Ontario transportation system, so that it may make its important contribution to the well-being of the nation, all governments will have to surrender some of their jurisdiction to the Airport Authority.



## **CHAPTER V**

### **Conclusions**

As already mentioned, this Commission has been engaged in the examination of the matters referred to it by the Order in Council P.C. 1973-3026 in relation to the air transportation needs of the central Ontario market since November, 1973. It has heard oral testimony from hundreds of witnesses, which was tested by cross-examination conducted by many experienced counsel representing all points of view, which recorded testimony consists of over a million and a half words. It has read and considered over 569 exhibits, filed, many of which consist of hundreds of pages. It has read articles, treatises and studies on the relevant problems in the air transportation industry which have been published throughout the world. It has talked personally, extending over many hours, with many persons, both in the United States, and in Europe, actively engaged in the airport industry and whose life's work has been in such industry. It has discussed with such persons, in detail, all of the problems with which it is concerned. Using this amalgam of information from all these sources, and after considering such carefully, the Commission has reached the views set out in Chapter IV upon which the answers in Chapter III were founded.

The Public Hearings were well attended and followed by a large segment of the public in order to be informed of the correct facts in respect to the air transportation needs of the central Ontario Market.

To ascertain the correct facts, it necessitated the magnitude of research, the quantum and quality of the evidence adduced and the

consideration of this evidence that was had and done. Much of the evidence needed the test of the searching cross-examination to which it was subjected.

It also necessitated broad consultation with experts in the United States and Europe whose whole lives, in the main, have been devoted to the day to day operations of airports, and who have experienced and are experiencing its continuing evolution.

Acknowledging that many members of the public have shown an interest in the work of the Commission and its conclusions, and may not have the time to read this whole Report, immediately, there is set out in this chapter an outline of the views of the Commission on some of the more salient matters, the full details of which are more particularly set out in Chapter IV.

## **A. HISTORICAL PROBLEMS**

1. Every major airport authority in the world (except those that have already built new airport facilities, as for example in Dallas/Fort Worth and in West Berlin (New Tegel) has concluded that its present airport facilities are inadequate for the future demand of one decade hence for the air transportation of passengers and cargo.

2. Every one of such major airport authorities has met extremely strong resistance from the communities surrounding their respective airport site or from environmentalists generally, on the basis of intrusion into the community.

3. The resistance of such persons has been articulated by an attack on two bases, namely, that there is no need, in that the forecasts of air traffic demand are overstated, or alternatively, if the figures of the forecasts are valid, that the location of a proposed airport site is wrong, in that it should be built somewhere else.

## **B. FUTURE PROBLEMS**

In assessing what those responsible for building new airport facilities should do, it should be noted first of all that:

- (1) no two airports are alike;
- (2) a number of statistics regarding airports and their facilities are often quoted by persons, which statistics are



meaningless in themselves, as for example, the acreage of an airport site; and

- (3) a solution for one airport site may be, and probably will be, impractical at another site.

Second, because historically all forecasts of demand for air transportation have been too low, if one is going to build a new airport facility, one will end up either overbuilding or underbuilding, because it is impossible to forecast exactly the demand that far in the future even though such forecasting is mandatory.

Some of the risks in over-forecasting are: (1) that something may be built which is not needed immediately, or (2) if needed but overbuilt, the money expended to the extent of such overbuilding is wasted in the short range.

Some of the risks of under-forecasting are: (1) an essential airport facility may not be available at the time it is required, and (2) it may not be possible to build such airport facility at all or where it ought to be, if delayed.

Third, there are many airports in the United States and Europe which cannot now be enlarged or expanded because it is not now possible to enlarge or expand one or more of the essential components of an airport system, (all of which are interrelated and inseparable) for example, (1) access, (2) airspace, (3) terminal facilities, and (4) runways.

### **C. MALTON**

1. In relation to the question of whether or not there is a need for a new international airport to serve the central Ontario market, Toronto International Airport, Malton, cannot be reconfigured or expanded within its present boundaries to meet the forecast demands, which the Commission has accepted will take place, for the reasons stated in Chapter IV.

2. Malton could be expanded to meet such forecast demands by forcefully acquiring, for noise abatement, access, runway and terminal facilities purposes, several thousands of acres of land on which are presently located, houses, apartments, and industrial and commercial premises. The acquisition costs to the Government of Canada, the economic loss to the industries and commercial establishments in the area and to the surrounding community, the loss of jobs and the social costs which would result, would be of

tremendous size, as is evidenced by the experience at Los Angeles. Such, if done, might not solve the problems of Malton, and the costs would probably far exceed the costs of establishing a second new international airport.

#### **D. THE PROPOSED SITE NEAR PICKERING**

1. The decision confirmed January 30, 1973, as to the need for a second international airport to serve the central Ontario market was the correct decision.

2. After carefully considering and weighing all the New evidence, the Commission concludes that there was no probative New evidence that the site near Pickering was not suitable for such second international airport.

#### **E. SOME OF THE VIEWS OF THE COMMISSION BY TOPICS**

##### **1. Forecasts**

The Commission accepts the probable forecasts of the Ministry of Transport, Canada, for passengers, air cargo and aircraft movements.

##### **2. Noise Disturbance from Airport Operation**

(a) The problem of noise disturbance associated with aircraft operations is not going to disappear. There may well be fluctuations in the level of such noise from time to time, but any reduction will be offset by the noise generated by an increase in aircraft movements and, to a lesser degree, by less tolerance by individuals as result of changes in personal life styles.

(b) Any reconfiguration of Malton will not only not decrease the noise level but will in fact increase it.

(c) By correctly planning and building a new airport at a site near Pickering, it is possible to achieve an accommodation between such an airport and the neighbouring community.

##### **3. Airport Facilities at Malton**

Malton cannot be expanded or reconfigured within its present boundaries for most of the period under consideration having regard to ground access, runway capacity

and terminal capacity even to meet the lowest demand forecast prepared by those who attacked the forecasts of the Ministry of Transport, Canada, as being excessive, erroneous and misleading.

**4. Ground Access to Airports**

- (a) Adequate access is an integral and inseparable component of any airport system.
- (b) Therefore, before the proposed airport facilities at the site near Pickering are opened to the public, it is essential that the access to such must be operational.
- (c) To create an operational access to such airport, planning and construction must be undertaken immediately.
- (d) The planning and construction of such access must be based on proven current technology, but fundamentally on a highway system.

**5. Runway Capacity**

- (a) A new runway for independent operations must be constructed at Malton to meet the demand until a second international airport is built.
- (b) Until then, this will cause an increase in noise disturbance in the communities around Malton, but cannot be avoided.
- (c) The establishment of dual lane parallel runways at Malton would provide no solution to the present problems.

**6. Airspace**

There is sufficient airspace above Malton and proposed Pickering, and from the point of view of airspace, both airports could be operated without any conflict between them.

**7. Environmental Aspects**

- (a) The environmental aspects of the site near Pickering can be protected by the careful planning and execution of the construction of the airport facilities.
- (b) Agricultural production on the site can continue on approximately 12,000 acres of the site.
- (c) There are many examples of agricultural production on airport sites in Canada, the United States and

Europe at the present time. Such agricultural production is compatible with airport operations.

- (d) Agricultural production on the proposed site has decreased in recent years, prior to its expropriation, and can be increased materially and compatibly with the use of the land as an airport.
- (e) There are a number of structures on the proposed airport site which are considered to be of historical or architectural significance. These structures should be preserved and could be moved and grouped together in the small hamlets which surround the proposed airport and on the airport site itself, and be actively used for residential and commercial purposes.

#### **8. Economic Impact**

- (a) It is essential to the strong economic base of the Province of Ontario that it possess an adequate air transportation system.
- (b) Such an economic base requires the construction of a second international airport.
- (c) Building such an airport at the site near Pickering will assist in implementing the design of the Province of Ontario for the Toronto-Centred Region.
- (d) The building of the airport at Pickering will have a beneficial economic impact on the region.

#### **9. Energy Crisis**

- (a) Air transportation is one of the most efficient ways, from an energy point of view, of moving people and certain goods over long distances.
- (b) Governments are likely to give jet fuel production a high priority.
- (c) In any event, the day to day adequacy of the supply of energy cannot form the basis of the planning necessary to meet the demand for air transportation in the future.
- (d) Major price increases probably are over for crude oil and from here on, its cost will adjust itself in parallel with the cost of other competing sources of energy.
- (e) In any event, the cost of the energy portion of air

transportation in relation to total costs is a small proportion of the total cost of air transportation.

**10. Air Cargo**

- (a) The potential for air cargo movement in Canada has not been fully exploited, and therefore, it could be a major error to under estimate such market.
- (b) The forecasts for increased cargo movements as projected by the Ministry of Transport, Canada, are probable, and should be used for planning purposes.

**11. New Technology**

- (a) There is no new technology in the foreseeable future which would affect any decisions made by the Government of Canada January 30, 1973.
- (b) It is improbable that existing jets will be required to comply with FAR Part 36. It is more probable that older noisier planes will be phased out for economic reasons.
- (c) It is improbable that any noise abatement modifications to jet aircraft engines, if made, (retrofitting and refanning) will lessen appreciably the noise disturbance (except temporarily) at Toronto International Airport, Malton, and in any event, will be offset in the long run by noise generated by the increased volume of aircraft movements.

**12. Travel Habits**

The travel habits following the introduction of the jet aircraft are irreversible and the propensity to travel will probably continue to grow.

**13. General Aviation**

- (a) General aviation is an essential service, and an important part of the central Ontario air transportation system.
- (b) The Government of Canada has not sufficiently encouraged general aviation.
- (c) General aviation must be coordinated and integrated into the air transportation system.

**14. STOL**

- (a) The short take-off and landing aircraft provides no



solution to meeting the forecast demands for passenger air transportation nor an answer to solving noise disturbance from aircraft operation.

- (b) It has an important part to play in providing air transportation service to remote areas; as a feeder service to major airports and short distance inter-urban trips.

**15. Two-Airport System**

A two-airport system is not only commonplace in the United States and Europe to-day, but will, out of necessity, become the norm for all major metropolitan areas in the next decade. Multi-airport systems will also become commonplace.

**16. The Role of the Proposed Pickering Airport**

- (a) Pickering, if built, should be an international airport.
- (b) The airport should not be opened until all the necessary facilities, and in particular, ground access, are operational.
- (c) Provision for a STOL feeder operation should be incorporated.
- (d) Facilities should be provided for such general aviation aircraft which require facilities which are only offered at a major airport.
- (e) The proposed Pickering airport should be a part of an integrated air transportation system for the central Ontario market operated under the direction and control of an Airport Authority.
- (f) Such an Airport Authority must determine which air carrier operates from which airport and in which particular flight sector.
- (g) Such an airport should be designed and constructed for the convenience of air passengers and not the air carriers.
- (h) The air transportation system, including the proposed Pickering airport, should be self-supporting.
- (i) The proposed Pickering airport in the proposed system, if built, should be developed so as to afford the maximum convenience to the passenger.

**17. Off-Site Terminals**

- (a) Off-site terminals will not do anything to meet the need for increased capacity at the airport site.
- (b) Public bus collection locations for air passengers should be established in areas where the market exists, at which locations parking lots should be established for private cars.

**18. Airport Zoning and Compensation**

Legislative policy in respect to airport zoning and compensation should be reviewed and changed so as to make airports (along with other uses affected by other zoning) compatible in the surrounding community.

**19. An Airport and Its Planning**

- (a) Airports must be, and can be, planned and built to establish an accommodation with the community in which they are located and should be planned and built primarily for the convenience of the public.
- (b) The lead time for construction of a new airport can vary from 6 to 10 years, therefore, in the case of Pickering, time is of the essence.

**20. An Airport Authority**

An Airport Authority should be established to operate and coordinate all activities of the air transportation system in the central Ontario market.



## APPENDIX 1

P.C. 1973-3026  
5 October, 1973



CANADA

PRIVY COUNCIL • CONSEIL PRIVÉ

WHEREAS the Government of Canada has decided that Toronto International Airport, Malton, will not be expanded beyond its present boundaries in order not to further increase the degree of disturbance from flight operations to the people now living in communities surrounding Toronto International Airport, Malton;

AND WHEREAS the Government of Canada has decided that the air transportation needs of the central Ontario market require that there be established another international airport in addition to Toronto International Airport, Malton;

AND WHEREAS the Government of Canada has chosen a site near Pickering, Ontario to be the location for the new International Airport;

AND WHEREAS it is desired to provide a means of receiving new evidence as to the need for and location of such an airport and new evidence of any relevant factor that has not been considered by the Government of Canada, if available and forthcoming;

AND WHEREAS there are other matters necessarily inter-related to and affected by such decisions in respect of which it is desired that there be an inquiry.

THEREFORE, THE COMMITTEE OF THE PRIVY COUNCIL advise that, pursuant to Part I of the Inquiries Act, the Honourable Mr. Justice Hugh F. Gibson, a Judge of the Federal Court of Canada, of the City of Ottawa in the Province of Ontario, Murray V. Jones, Esquire, of the City of Toronto in the Province of Ontario, and Dr. Howard Petch, Esquire, of the City of Kitchener in

the Province of Ontario, be appointed Commissioners under Part I of the Inquiries Act (to be known as the "Airport Inquiry Commission") to inquire into and report upon the air transportation needs of the central Ontario market as follows:

1. In relation to the decisions that there is a need for a new International Airport for the central Ontario market and that the new International Airport be located on the site near Pickering, Ontario, to receive and record new evidence, if available, and if available and adduced, to report on such new evidence in response to the following questions:
  - (a) respecting need,
    - (i) is there any new evidence as to what is the expected maximum passenger traffic volume in the domestic, trans-border and international air traffic markets for the year 1980 and what are the best estimates of rates of growth beyond 1980, and
    - (ii) is there any new evidence that Toronto International Airport, Malton, can be expanded or reconfigured, within present boundaries, to meet all reasonable needs, having regard to runway capacity, ground access, terminal capacity and the number of people affected by disturbance from flight operations for the period up to 1980, 1990 and 2000;
  - (b) respecting location,  
is there any new evidence to prove that the site near Pickering, Ontario is not suitable for the new International Airport for the central Ontario market having regard to
    - (i) disturbance from flight operations,
    - (ii) passenger convenience,
    - (iii) regional economic effect,
    - (iv) total environmental effect, positive and negative, and
    - (v) facilities required, including related infrastructures such as roads, railways, guideways and helicopter facilities, and
  - (c) generally, is there any new evidence of any relevant factor that has not been considered by the Government of Canada, such, for example, as established facts on technology or travel



habits, that may appear to affect any decision of the Government of Canada taken to date?

2. To receive and report on any evidence adduced and, if deemed advisable, to make recommendations in so far as they are within federal legislative jurisdiction in response to the following questions:
  - (a) should the new International Airport be principally international in character or should it serve some other function,
  - (b) what airline traffic sectors or parts thereof should be allocated to the new International Airport in the major first phase in order to relieve the disturbance caused by flight operations at Malton,
  - (c) to what extent should domestic and United States traffic be served at the new International Airport in addition to the airport having an international role,
  - (d) should the opening date of the major first phase be 1980 or later,
  - (e) should there be a partial or limited opening of the new International Airport prior to 1980,
  - (f) what should be the nature of
    - (i) the ground access to the new International Airport, and
    - (ii) the inter-airport transportation between Toronto International Airport, Malton, and the new International Airport, and
  - (g) from the point of view of passenger convenience, should a downtown terminal or terminals be established in respect of Toronto International Airport, Malton or the new International Airport?
3. For the purpose of reporting under subparagraphs 1(a), (b) and (c), to receive new evidence, if any is forthcoming and adduced in accordance with the practices and procedures of the Commission, from any private member of the public, any interested agency, any group or corporation and any representative of the federal or any provincial, regional or municipal government who desires to give evidence.
4. For the purpose of reporting and if deemed advisable making recommendations under paragraph 2, to receive evidence, if forthcoming and adduced in accordance with the practices

and procedures of the Commission, from any private member of the public, any interested agency, any group or corporation and any representative of the federal or any provincial, regional or municipal government who desires to give evidence.

THE COMMITTEE further advise that

- A. the Honourable Mr. Justice Hugh F. Gibson be appointed Chairman of the Airport Inquiry Commission;
- B. the Chairman be authorized to prescribe and adopt such practices and procedures for all purposes of the Commission as he may from time to time deem expedient for the proper conduct of the inquiry and to vary those practices and procedures from time to time;
- C. the Commissioners be authorized to sit at such times and at such places and to view such other locations as the Chairman may from time to time decide;
- D. the Commissioners be authorized to engage the services of such accountants, engineers, technical advisers or other experts, clerks, reporters and assistants as they deem necessary or advisable, and also the services of counsel to aid and assist the Commissioners in the inquiry, at such rates of remuneration and reimbursement as may be approved by the Treasury Board;
- E. the Commissioners be authorized to rent such space for offices and hearing rooms as they deem necessary or advisable at such rental rates as may be approved by the Treasury Board; and
- F. the Commissioners be authorized to submit interim reports to the Governor in Council from time to time and be requested to submit a final report to the Governor in Council with all reasonable despatch, if possible within twelve months.

THE COMMITTEE further advise that, pursuant to section 37 of the Judges Act, the Honourable Mr. Justice Hugh F. Gibson be authorized to act as Commissioner for the purposes of the said inquiry.

CERTIFIED TO BE A TRUE COPY – COPIE CERTIFIÉE CONFORME

“R. G. ROBERTSON”

CLERK OF THE PRIVY COUNCIL LE GREFFIER DU CONSEIL PRIVÉ

**APPENDIX 2**



**AIRPORT INQUIRY COMMISSION**

**PRACTICE AND PROCEDURE**

**AIRPORT INQUIRY COMMISSION**

**CHAIRMAN**

The Honourable Mr. Justice Hugh F. Gibson

**MEMBERS**

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Murray V. Jones, Esq.

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## General Information

The Airport Inquiry Commission, authorized by Order in Council, P.C. 1973-3026 dated 5 October, 1973, opened its offices at Suite 5401, 54th Floor of the Toronto Dominion Bank Tower, Toronto-Dominion Centre, in the City of Toronto on the 3rd day of December, 1973.

The Commission has established a Practice and Procedure for the orderly conduct of the Inquiry. The Practice and Procedure has also been framed with the view that all interested persons are entitled to know the nature of the evidence that will be submitted to the Commission at each Public Hearing and to provide all interested persons with an opportunity to submit all relevant evidence to the Commission.

The following is a short summary of the manner in which the Inquiry will be conducted. For detailed particulars, it will be necessary to consult the Practice and Procedure of the Commission.

After the opening of the Commission offices, the Government of Canada shall file a summary of the relevant factors, with supporting documents, which the Government considered in reaching its decision that the transportation needs of the central Ontario market required that there be established another International Airport, in addition to the Toronto International Airport, Malton, and that the location of the new International Airport be near Pickering, Ontario.

The said Government summary will also contain an outline of any *new evidence* and documents, if any, in response to the various questions into which the Commission is to inquire such as *new evidence* as to the need of a new International Airport, *new evidence* as to the location of a new International Airport and as to whether there is any *new evidence* of any relevant factor that has not been considered by the Government of Canada to date that may appear to affect any decision of the Government of Canada taken to date such as established facts on technology or travel habits.

The said summary of the Government shall also respond to the various questions, set out in the Order in Council, on which the Commission is to receive and report and, if deemed advisable, to make recommendations *on evidence* in relation to the nature of the new International Airport, the airline traffic sectors which should

be allocated to the new International Airport, whether the new Airport is to have another role in addition to an international character, the manner in which the new Airport should be opened, the means of ground access to the new International Airport and whether a downtown terminal or terminals should be established, having regard for passenger convenience, to service Toronto International Airport, or the new International Airport.

Following the filing of the said Government summary all interested persons, including the Government of Canada, who wish to appear before the Commission at Public Hearings and adduce *new evidence* in respect to the matters mentioned in *Paragraph 1* and *any evidence* in respect to the matters mentioned in *Paragraph 2* of the said Order in Council will be required to file at the Commission's offices a full written statement of the evidence which they propose to adduce before the Commission. Personnel will be available at the Commission's offices to assist members of the public who wish assistance in the preparation of the written statement of their proposed evidence.

The 30th January, 1973 was the date that Notice of Confirmation of Intention of the Government of Canada to expropriate the lands for the Pickering Airport was given under The Expropriation Act, Revised Statutes of Canada 1970, Chapter 16 (1st Supplement). Accordingly the words "new evidence" used in the said Order in Council will therefore be interpreted as meaning any evidence of a relevant factor, the evidence of which has arisen since the 30th January, 1973.

"Arisen" in this context means something that was not in the mind of the Canadian Government when it took, on 30 January, 1973, the policy decisions referred to in Order in Council, P.C. 1973-3026.

Each Public Hearing by the Commission will deal with a specific topic or a group of related topics, as may be established by the Commission from time to time. The public will be notified well in advance of all Hearings, by means of public notices published in newspapers serving the central Ontario market.

Only persons who have filed a full written statement of the evidence which they propose to adduce before the Commission, within the time limit prescribed by the Commission, will be entitled

to adduce evidence before the Commission on a Public Hearing of the Commission.

There will be Commission Counsel to assist the Commissioners, to help in the orderly conduct of the Inquiry and to ensure that all relevant factors are submitted to the Commission.

All requests for information, and all communications with the Airport Inquiry Commission and any Commissioner shall be directed to the Registrar-Administrator, Airport Inquiry Commission at its offices.

## Practice and Procedure

### I NEW EVIDENCE

For the purposes of the Practice and Procedure of the Airport Inquiry Commission the words “*new evidence*” mean as follows:

(a) The 30th January, 1973 was the date that Notice of Confirmation of Intention of the Government of Canada to expropriate the lands for the Pickering Airport was given under The Expropriation Act, Revised Statutes of Canada 1970, Chapter 16 (1st Supplement). Accordingly the words “*new evidence*” used in the said Order in Council will therefore be interpreted as meaning any evidence of a relevant factor, the evidence of which has arisen since the 30th January, 1973.

(b) “*Arisen*” in this context means something that was not in the mind of the Canadian Government when it took, on 30th January, 1973, the policy decisions referred to in Order in Council, P.C. 1973-3026.

### II FILING OF GOVERNMENT SUMMARY

The Government of Canada will cause to be deposited at the Commission’s offices, at such time as may be established by the Commission, a written summary, with supporting documents, as follows:

1. In respect to those matters mentioned in Paragraph 1 of Order in Council, P.C. 1973-3026.

(a) The relevant factors considered by the Government in reaching its decision that the air transportation needs of the central Ontario market require that there be established another International Airport in addition to the Toronto International Airport and the choice of site near Pickering, Ontario, as the location for such new International Airport;

(b) Any *new evidence* in respect to the need for a new International Airport, having regard to the decisions of the Government of Canada that there is a need for a new International Airport to serve the central Ontario market, in relation to the following:

(i) the expected maximum passenger traffic volume in the

domestic, trans-border and international air traffic markets for the year 1980;

- (ii) the best estimate of rates of growth of passenger traffic volume in the domestic, trans-border and international air traffic markets beyond 1980;
- (iii) the expansion or reconfiguration of the Toronto International Airport, Malton, within present boundaries, to meet all reasonable needs for the periods from the present to 1980, from the present to 1990 and from the present to 2000, having regard to runway capacity, ground access, terminal capacity and the number of people affected by disturbance from flight operations;
- (c) Any *new evidence* to prove that the site of a new International Airport near Pickering, Ontario, is not suitable, having regard to the decisions of the Government of Canada that the new International Airport should be located on a site near Pickering, Ontario, having regard to:
  - (i) disturbance from flight operations;
  - (ii) passenger convenience;
  - (iii) regional economic effect;
  - (iv) total environmental effect, positive and negative; and
  - (v) facilities required, including related infrastructures such as roads, railways and helicopter facilities;
- (d) Any *new evidence* of any relevant factor not previously considered by the Government which may appear to affect any decision of the Government taken to date.

2. In respect to those matters mentioned in Paragraph 2 of Order in Council, P.C. 1973-3026.

- (a) Any *evidence* as to whether the new International Airport should be principally international in character or serve some other function;
- (b) Any *evidence* as to the airline sectors which should be allocated to the new International Airport in the major first phase of its operation in order to relieve the disturbance caused by flight operations at the International Airport at Malton;
- (c) Any *evidence* as to whether domestic and United States air traffic should be served at the new International Airport in addition to the airport having an international role;



- (d) *Any evidence* as to whether there should be an opening date of the major first phase of the new Airport in 1980 or later;
- (e) *Any evidence* as to whether there should be a partial or limited opening of the operations of the new International Airport prior to 1980;
- (f) *Any evidence* as to the nature of ground access to the new International Airport;
- (g) *Any evidence* as to the nature of inter-air transportation between Toronto International Airport and the new International Airport;
- (h) *Any evidence* as to the need for the establishment of a downtown Toronto terminal or terminals in respect to Toronto International Airport or the new International Airport having regard for passenger convenience.

### III INTERESTED PERSONS AND WITNESSES

1. Any private member of the public or representative of an interested agency, group or corporation and any representative of the federal or any provincial, regional or municipal government who wishes to appear and adduce evidence before the Commission on a particular topic, for which the Commission has published notice requesting evidence statements, shall file at the Commission's offices, on or before the date specified in such notice as the last day for filing of evidence statements, an evidence statement which shall contain the following:

- (a) His or her name, address and telephone number;
- (b) Whether he or she has a general interest or a special interest in the inquiry and the nature of his or her general or special interest;
- (c) Whether his or her evidence will be of a factual nature or of an opinion nature. If his or her evidence will be of an opinion nature, he or she shall specify the special skill which he or she possesses by reason of experience or study which has rendered him or her peculiarly skilled on the topic on which he or she intends to give evidence;
- (d) The particular topic to which his or her evidence will be directed;
- (e) If the witness's evidence will be directed to any of the

matters mentioned in Paragraphs II 1 (a), (b), (c) and (d) hereof, he or she shall specify concisely the basis of his or her claim that his or her evidence is *new evidence*;

(f) A full statement of his or her proposed evidence;

(g) If he or she intends to introduce any exhibit before the Commission to supplement or explain his or her statement, such as supporting documents, plans, reports, technical memoranda, etc., he or she shall attach to the statement a separate page listing such exhibits;

(h) Whether he or she intends to rely in whole or in part on the testimony of an expert, and if so, he or she shall attach to the statement a separate page or pages which shall set out the name, address and phone number of such expert, the qualifications of such expert, the proposed evidence of such expert and a written acknowledgement of such expert that he or she is willing to attend before the Commission and to submit to examination and cross-examination, if required to do so;

(i) An acknowledgement that he or she will attend before the Commission and submit to examination and cross-examination, if required to do so;

(j) His or her signature.

2. If it is stated, in an evidence statement, that the person filing such evidence statement intends to introduce any exhibits before the Commission, he or she must file a copy of the proposed exhibit at the time of filing his or her evidence statement. If he or she fails to do so, the Commission will not receive such exhibits into evidence.

3. No oral evidence will be received by the Commission from an individual, or representative of a group, corporation, federal, provincial, regional or municipal government who has not filed an evidence statement.

4. Any evidence statement which is not in compliance with these provisions will not be accepted for filing but shall be returned for revision, amendment or correction, as the case may be.

5. Any interested person filing an evidence statement may be required to appear before the Commission and to give oral evidence thereon and be subject to cross-examination. On any Public Hearing by the Commission, such interested person in giving oral evidence shall be limited to such matters as are set out in his or her

evidence statement, except that a witness will be allowed to give any additional evidence as may be necessary to explain or demonstrate the facts set out in his or her evidence statement.

6. The Commission will only receive opinion evidence of a witness where it is indicated that the witness possesses a special skill by reason of experience or study in respect to the particular subject on which he or she intends to express an opinion.

7. If it appears to Commission Counsel, after reviewing evidence statements filed in respect to any particular topic to be considered by the Commission, that there is evidence in addition to the evidence set out in the evidence statements, filed, which should be adduced before the Commission in the public interest, Commission Counsel shall be entitled to call witnesses in respect to such evidence on the Public Hearing into such topic.

8. Commission Counsel shall endeavour to file an evidence statement in respect to such witness, together with any exhibits to be introduced before the Commission through such witness, prior to the date fixed for the Public Hearing at which such witness will testify, provided that failure to do so shall not preclude Commission Counsel from calling such witness and introducing any such exhibits, notwithstanding anything herein to the contrary.

9. The Commission in its discretion may allow reply evidence to rebut evidence given by another witness or witnesses, and in that event, the evidence of such rebuttal witness or witnesses shall be limited exclusively to rebuttal and the provisions of Paragraph III 3 hereof, shall not apply to any such witness or witnesses.

#### **IV INSPECTION AND RECEIPT OF INFORMATION**

Any member of the Public, during public business hours of the Commission's offices, may inspect and receive information from any evidence statement filed and any exhibits filed therewith and receive copies thereof, where feasible, provided such person pays the prescribed costs of such copying. (A copy of this Practice and Procedure and the Order in Council setting up the Airport Inquiry Commission however will be supplied to any member of the Public free of charge).

## **V COMMISSION COUNSEL**

1. There will be Commission Counsel to assist the Commissioners, to help in the orderly conduct of the inquiry and to ensure that all relevant factors are submitted to the Commission.

2. Commission Counsel will be present at all Organizational Hearings and Public Hearings and shall call such witnesses to give oral evidence as he in his discretion deems advisable. When for example it appears to Commission Counsel that two or more persons have similar evidence on the matter under consideration at any Public Hearing, Commission Counsel, in his discretion, may select one or more persons to give such oral evidence for the benefit of all persons having similar evidence. Commission Counsel may at any Public Hearing file as part of the record of such Hearing any evidence statement without requiring the person who filed such evidence statement to give oral evidence before the Hearing.

3 At any Public Hearing any member of the public may request Commission Counsel, in writing, to ask a particular question of a witness, and Commission Counsel may, in his discretion, ask such question.

## **VI OTHER COUNSEL**

Other counsel may appear before the Commission in such capacity as may be determined by the Commission at any Organizational Hearing.

## **VII COMMISSION STAFF**

1. Any member of the public may inquire at the Commission offices of any matter concerning the subject matter of this Inquiry and the Commission staff, prior to any Organizational Hearing or any Public Hearing or during any Public Hearing, will attempt to satisfy any inquiry so made.

2. The Commission staff shall assist any person, who wishes assistance, in the preparation of an evidence statement.

## **VIII ORGANIZATIONAL HEARINGS**

1. There may be one or more Organizational Hearings prior to any Public Hearing. At the first of such Organizational Hearings, the public will be asked to file, in writing, suggestions for any additional topic, within the terms of reference prescribed in Order in Council P.C. 1973-3026, which he or she wishes the Commission



to consider, and the Commission, if it deems appropriate and advisable, may add such topic or topics to the matters to be considered by it and request that evidence be adduced in respect thereof.

2. At the first Organizational Hearing, any private member of the public or representative of any interested agency, group, corporation, federal government, provincial government, regional or municipal government who wishes to have counsel represent their position in any or all of the Public Hearings of the Commission will be invited to request that they be permitted to have counsel participate on their behalf on any or all Public Hearings of the Commission and to have the role of such counsel in such Hearings determined. Any member of the public or representative of any interested agency, group, corporation and any representative of the federal or any provincial, regional or municipal government who intends to make such request at such Organizational Hearing shall file at the Commission's offices at least ten (10) days prior to the date fixed for such Organizational Hearing, a statement which shall set out the role that it is proposed that such counsel will take at any Public Hearing and the reason for the need to be represented by counsel.

3. Any private member of the public or representative of any interested agency, group or corporation or any representative of the federal or any provincial, regional or municipal government who fails to file such statement, or having filed such statement fails to attend or to be represented at such Organizational Hearing in respect to such request, shall be deemed to have waived any right to have counsel attend at any Public Hearing other than in a capacity as an observer.

## **IX THE SUMMONING OF WITNESSES AND THE PRODUCTION OF DOCUMENTS**

The Chairman of the Commission on application may authorize the issue of a subpoena to compel the attendance of a witness before any Public Hearing to give evidence and to produce such documents and things as may be deemed requisite. Any person may request the Chairman to issue such subpoena by filing written application at the Commission's offices at least fifteen (15) days prior to the date fixed for the Public Hearing at which it is intended



to summon such witness. The application shall set out the name and address of the applicant and of the proposed witness, the nature of the evidence, document or thing believed to be possessed by such witness and the reason why the applicant deems the testimony, document or thing in the possession of such witness to be important. The applicant shall be advised of the Chairman's decision, as to whether a subpoena should be issued or not, at least ten (10) days prior to the date fixed for the Public Hearing at which such witness is to be called. If it is the decision of the Chairman to grant such application, it is the responsibility of the applicant to arrange for service of such subpoena and to pay to the witness to be subpoenaed such witness fees and conduct money as are prescribed in the Rules of the Federal Court of Canada.

## **X PUBLIC HEARINGS**

1. The Chairman of the Commission shall from time to time fix a time and place for each Public Hearing and each Organizational Hearing.

2. There shall be more than one Public Hearing and there may be more than one Organizational Hearing.

3. Each Public Hearing shall be confined to receiving evidence on the particular topic or topics fixed for such Hearing, as previously published.

4. The Practice and Procedure to be followed at each Public Hearing and Organizational Hearing shall be in the discretion of the Chairman.

## **XI NOTICES**

1. All notices of Organizational Hearings and Public Hearings shall be published in such newspapers and periodicals serving the Central Ontario market as the Commission in its discretion may determine.

2. The Registrar-Administrator to the Commission shall cause to be published, as aforesaid, the following:

(a) Notice of each topic or topics for which the Commission requests evidence and the last day for the filing of evidence statements in respect to such topic;

(b) Notice of any Organizational Hearing within a reasonable time prior to the date fixed for such Organizational Hearing;

(c) Notice of each Public Hearing at least twenty (20) days prior to the date fixed for any such Hearing.

3. No notice of any adjourned Hearing shall be published unless such adjourned Hearing is adjourned to a date to be fixed.

4. For the purposes of computing any time limit, hereunder, a notice shall be deemed to have been first published in a newspaper or periodical serving the central Ontario market from the date it is first published in a newspaper in the City of Toronto.

## **XII COMMUNICATION WITH COMMISSIONERS**

All communication with the Commission or the Commissioners shall be through and by the Registrar-Administrator.

## **XIII TOPICS**

1. The Commission will conduct its inquiry, within the terms of reference as prescribed by Order in Council, P.C. 1973-3026, on the basis of the following general topics:

facilities

technology

travel habits

need

location

The Commission may, from time to time, enlarge, consolidate, delete and modify any of the said general topics.

2. The consideration of each general topic will have the following aspects:

(a) The Commission will only receive *new evidence* in respect to those matters mentioned in Paragraph 1 of the said Order in Council;

(b) The Commission will receive *any and all evidence* in relation to those matters mentioned in Paragraph 2 of the said Order in Council.

The said Order in Council, Order in Council P.C. 1973-3026, is hereunto annexed as Schedule "A".

**XIV     PAYMENT OF COSTS OF REPORTS, RESEARCH,  
WITNESS FEES AND WITNESS'S EXPENSES**

The Commission shall only be responsible for payment of costs of research, preparation of reports and witness fees as may be authorized by the Chairman of the Commission on request of Commission Counsel as being necessary to enable Commission Counsel to adduce evidence before the Commission of all relevant factors as required under Paragraph III 7 hereof.

**XV     WRITTEN AND ORAL SUBMISSIONS**

On the conclusion of Public Hearings of a general topic, the Commission may, if it deems advisable, request oral or written submissions.

Dated this 3rd day of December, 1973.

**SCHEDULE "A"**



P.C. 1973-3026  
5 October, 1973

**PRIVY COUNCIL • CONSEIL PRIVÉ**

WHEREAS the Government of Canada has decided that Toronto International Airport, Malton, will not be expanded beyond its present boundaries in order not to further increase the degree of disturbance from flight operations to the people now living in communities surrounding Toronto International Airport, Malton;

AND WHEREAS the Government of Canada has decided that the air transportation needs of the central Ontario market require that there be established another international airport in addition to Toronto International Airport, Malton;

AND WHEREAS the Government of Canada has chosen a site near Pickering, Ontario to be the location for the new International Airport;

AND WHEREAS it is desired to provide a means of receiving new evidence as to the need for and location of such an airport and new evidence of any relevant factor that has not been considered by the Government of Canada, if available and forthcoming;

AND WHEREAS there are other matters necessarily inter-related to and affected by such decisions in respect of which it is desired that there be an inquiry.

THEREFORE, THE COMMITTEE OF THE PRIVY COUNCIL advise that, pursuant to Part I of the Inquiries Act, the Honourable Mr. Justice Hugh F. Gibson, a Judge of the Federal Court of Canada, of the City of Ottawa in the Province of Ontario, Murray V. Jones, Esquire, of the City of Toronto in the Province of Ontario, and Dr. Howard Petch, Esquire, of the City of Kitchener in the Province of Ontario, be appointed Commissioners under Part I of the Inquiries Act (to be known as the "Airport Inquiry Commission") to inquire into and report upon the air transportation needs of the central Ontario market as follows:

1. In relation to the decisions that there is a need for a new International Airport for the central Ontario market and that the new International Airport be located on the site near

Pickering, Ontario, to receive and record new evidence, if available, and if available and adduced, to report on such new evidence in response to the following questions:

(a) respecting need,

(i) is there any new evidence as to what is the expected maximum passenger traffic volume in the domestic, trans-border and international air traffic markets for the year 1980 and what are the best estimates of rates of growth beyond 1980, and

(ii) is there any new evidence that Toronto International Airport, Malton, can be expanded or reconfigured, within present boundaries, to meet all reasonable needs, having regard to runway capacity, ground access, terminal capacity and the number of people affected by disturbance from flight operations for the period up to 1980, 1990 and 2000;

(b) respecting location,

is there any new evidence to prove that the site near Pickering, Ontario is not suitable for the new International Airport for the central Ontario market having regard to

(i) disturbance from flight operations,

(ii) passenger convenience,

(iii) regional economic effect,

(iv) total environmental effect, positive and negative, and

(v) facilities required, including related infrastructures such as roads, railways, guideways and helicopter facilities, and

(c) generally, is there any new evidence of any relevant factor that has not been considered by the Government of Canada, such, for example, as established facts on technology or travel habits, that may appear to affect any decision of the Government of Canada taken to date?

2. To receive and report on any evidence adduced and, if deemed advisable, to make recommendations in so far as they are within federal legislative jurisdiction in response to the following questions:

(a) should the new International Airport be principally international in character or should it serve some other function,



- (b) what airline traffic sectors or parts thereof should be allocated to the new International Airport in the major first phase in order to relieve the disturbance caused by flight operations at Malton,
  - (c) to what extent should domestic and United States traffic be served at the new International Airport in addition to the airport having an international role,
  - (d) should the opening date of the major first phase be 1980 or later,
  - (e) should there be a partial or limited opening of the new International Airport prior to 1980,
  - (f) what should be the nature of
    - (i) the ground access to the New International Airport, and
    - (ii) the inter-airport transportation between Toronto International Airport, Malton, and the new International Airport, and
  - (g) from the point of view of passenger convenience, should a downtown terminal or terminals be established in respect of Toronto International Airport, Malton or the new International Airport?
- 3. For the purpose of reporting under subparagraphs 1(a), (b) and (c), to receive new evidence, if any is forthcoming and adduced in accordance with the practices and procedures of the Commission, from any private member of the public, any interested agency, any group or corporation and any representative of the federal or any provincial, regional or municipal government who desires to give evidence.
  - 4. For the purpose of reporting and if deemed advisable making recommendations under paragraph 2, to receive evidence, if forthcoming and adduced in accordance with the practices and procedures of the Commission, from any private member of the public, any interested agency, any group or corporation and any representative of the federal or any provincial, regional or municipal government who desires to give evidence.

THE COMMITTEE further advise that

- A. the Honourable Mr. Justice Hugh F. Gibson be appointed Chairman of the Airport Inquiry Commission;

- B. the Chairman be authorized to prescribe and adopt such practices and procedures for all purposes of the Commission as he may from time to time deem expedient for the proper conduct of the inquiry and to vary those practices and procedures from time to time;
- C. the Commissioners be authorized to sit at such times and at such places and to view such other locations as the Chairman may from time to time decide;
- D. the Commissioners be authorized to engage the services of such accountants, engineers, technical advisers or other experts, clerks, reporters and assistants as they deem necessary or advisable, and also the services of counsel to aid and assist the Commissioners in the inquiry, at such rates of remuneration and reimbursement as may be approved by the Treasury Board;
- E. the Commissioners be authorized to rent such space for offices and hearing rooms as they deem necessary or advisable at such rental rates as may be approved by the Treasury Board; and
- F. the Commissioners be authorized to submit interim reports to the Governor in Council from time to time and be requested to submit a final report to the Governor in Council with all reasonable despatch, if possible within twelve months.

THE COMMITTEE further advise that, pursuant to section 37 of the Judges Act, the Honourable Mr. Justice Hugh F. Gibson be authorized to act as Commissioner for the purposes of the said inquiry.

CERTIFIED TO BE A TRUE COPY — COPIE CERTIFIÉE CONFORME

"R. G. ROBERTSON"

CLERK OF THE PRIVY COUNCIL LE GREFFIER DU CONSEIL PRIVÉ

### **APPENDIX 3**

IN THE MATTER OF THE AIRPORT INQUIRY COMMISSION established by The Committee of the Privy Council of Canada by P.C. 1973-3026, 5 October, 1973.

AND IN THE MATTER of the Practice and Procedure prescribed and adopted by the Airport Inquiry Commission, pursuant to Paragraph B of P.C. 1973-3026, dated 3 December, 1973.

### **AFFIDAVIT**

I, J.W. NORMAN DELORME, of the City of Toronto, in The Municipality of Metropolitan Toronto, Registrar-Administrator of the Airport Inquiry Commission, make oath and say:

1. I did cause to be published in various newspapers and periodicals in the month of December, 1973, notice that the Airport Inquiry Commission had opened its office at Suite 5401, 54th Floor of The Toronto-Dominion Bank Tower, Toronto-Dominion Centre, in the City of Toronto, and a brief description of the manner in which the Airport Inquiry Commission would conduct its inquiry. The notice was published in a newspaper in the City of Toronto on the 12th day of December, 1974. Now produced and shown to me and marked as Exhibits "A" and "A1", respectively, to this my Affidavit is a true copy of the said notice published in English language newspapers and periodicals and in French language newspapers and periodicals. Now produced and shown to me and marked Exhibits "B" and "B1", respectively, to this my Affidavit is a list of the English language newspapers and periodicals and French language newspapers and periodicals in which such notice was published.

2. On or about the 12th day of December, 1973, I did give notice to each Member of the Executive Council of the Province of Ontario, each Deputy Minister of the Province of Ontario and all Members of the Legislative Assembly of the Province of Ontario, that the Airport Inquiry Commission had commenced its inquiry by writing a letter to each of them and enclosing, in the letter, a copy of Order in Council P.C. 1973-3026, a copy of the Practice and Procedure of the Commission, a copy of the notice marked as

Exhibit "A" to this my Affidavit, a copy of the list of the newspapers and periodicals in which the said notice was published, marked as Exhibits "B" and "B1" to this my Affidavit and a copy of the list of persons and places to which the material had been delivered or mailed. I did cause the said letters to be delivered by messenger to the mailing room, Parliament Buildings, Queen's Park, City of Toronto. Now produced and shown to me and marked Exhibits "C" and "D", respectively, to this my Affidavit is the form of letter which I wrote to each of the said persons and a copy of the material which was included in the said letters.

3. On or about the 13th and 14th days of December, 1973, I did cause notice to be given to each Member of the Parliament of Canada representing an electoral district within the boundaries of the Province of Ontario that the Commission had commenced its inquiry by mailing to each of them, addressed to them respectively at the House of Commons, Parliament Buildings, Ottawa, Ontario, a letter, in the form marked as Exhibit "C" to this my Affidavit and enclosing in each such letter copies of the material marked as Exhibit "D" to this my Affidavit. Now produced and shown to me and marked Exhibit "E" to this my Affidavit is a list of the members of Parliament to whom the said notice was given.

4. On or about the 13th and 14th days of December, 1973, I did cause notice to be given to various Regional and Municipal Governments that the Airport Inquiry Commission had commenced its inquiry by mailing a letter to each of such Chairman, Mayor, Reeve, and/or Warden, as the case may be, and the Clerk of such Regional or Municipal Government, in the form marked as Exhibit "C" to this my Affidavit in which was enclosed the material marked as Exhibit "D" to this my Affidavit. Now produced and shown to me and marked Exhibit "F" to this my Affidavit is a list of the Chairmen, Mayors, Reeves, and/or Wardens, as the case may be, and the Clerks of each of such Regional or Municipal Governments to which such notice was so given.

5. On or about the 13th and 14th days of December, 1973, I did give notice to various radio and television stations by mailing to each of them a letter, in the form marked as Exhibit "C" to this my Affidavit, in which was enclosed the material marked as Exhibit "D" to this my Affidavit. Now produced and shown to me and

marked Exhibit "G" to this my Affidavit is a list of the various radio and television stations to which such notice was given.

6. On or about the 13th and 14th days of December, 1973, I did cause notice to be given, by mail, to the various newspapers and periodicals listed in Exhibits "B" and "B1" to this my Affidavit that the Airport Inquiry Commission had commenced its inquiry by mailing to each of them a letter in the form marked as Exhibit "C" to this my Affidavit in which was enclosed the material marked as Exhibit "D" to this my Affidavit with the exception of the advertisement notice.

7. During the period 12 December, 1973, to the date hereof of the swearing of this my Affidavit, I did cause either to be mailed or personally handed to each person who contacted the office of the Commission for a copy of the Practice and Procedure of the Commission, a copy of the said Practice and Procedure of the Airport Inquiry Commission. Now produced and shown to me and marked Exhibit "H" to this my Affidavit is a list of all persons to whom a copy of the said Practice and Procedure was mailed or handed.

8. Pursuant to the Practice and Procedure of the Commission, I did cause to be published in various newspapers and periodicals the following:

- (a) The various questions which the Commission would consider at Public Hearings to be held at Malton commencing 18 March, 1974, Howard Johnson Hotel, Dixon Road and Highway 27, 6:00 p.m.
- (b) Notice of an Organizational Hearing to be held at Malton, 20 February, 1974, Howard Johnson Hotel, Dixon Road and Highway 27, 8:30 p.m. for the purpose of determining the procedure to be followed and the role of Counsel for the aforesaid Public Hearings to be held at Malton.
- (c) Notice that the last date for filing of evidence statements in respect to the questions to be considered at the Public Hearings to be held at Malton is 4 March, 1974.
- (d) The various questions which the Commission would consider at Public Hearings to be held at Pickering commencing 8 April, 1974, Pickering High School, Church Street North, Pickering, 6:00 p.m.



- (e) Notice of an Organizational Hearing to be held 21st of February, 1974, Pickering High School, Church Street North, Pickering, 8:30 p.m. for the purpose of determining the procedure to be followed and the role of Counsel at the aforesaid Public Hearings to be held at Pickering.
- (f) Notice that the last date for filing of evidence statements in respect to the questions to be considered at the Public Hearings to be held at Pickering is 25 March, 1974.
- (g) The various questions which the Commission would consider at Public Hearings to be held at Toronto commencing Monday, 22nd of April, 1974, in the Council Chamber (Court Room 42), of the Old City Hall, City of Toronto, at 6:00 p.m.
- (h) Notice of an Organizational Hearing to be held on the 22nd of February, 1974, in the Council Chamber of the Old City Hall, City of Toronto, at 2:30 p.m. for the purpose of determining the procedure to be followed and the role of Counsel at the aforesaid Public Hearings to be held at Toronto.
- (i) Notice that the last date for filing of evidence statements in respect to the questions to be considered at the Public Hearings to be held at Toronto is 8 April, 1974.

The said advertisement was published in a newspaper published in the City of Toronto on the 13th day of February, 1974. Now produced and shown to me and marked as Exhibit "I" & "II" to this my Affidavit is a true copy of the said advertisement.

9. I did cause to be mailed on the 13th of February, 1974, to each Member of the Executive Council of the Province of Ontario and each Deputy Minister of the Province of Ontario a letter from the Chairman of the Commission addressed to them respectively at Parliament Buildings, Queen's Park, Toronto, Ontario, in which was enclosed in such letters a copy of Schedule of Hearings and a copy of the Practice and Procedure of the Airport Inquiry Commission. Now produced and shown to me and marked as Exhibits "J", "K" and "L", respectively, is a form of the letter written by the Chairman to each of the said persons, a copy of the material enclosed in the said letter and a list of the persons to whom the said letter was mailed.

10. I did cause notice of each of the said Organizational Hearings and Public Hearings to be held at Malton, Pickering and Toronto, as aforesaid, to be given to the Members of the Legislative Assembly of the Province of Ontario, Members of the House of Commons, Canada, Chairmen, Mayors, Reeves, and/or Wardens, as the case may be, and Clerks of various Regional and Municipal Governments, radio and television stations, various newspapers and periodicals and persons who had contacted the Office of the Commission to that date, by mailing to them, respectively, a letter in which was enclosed a copy of the said Schedule of Hearings. Now produced and shown to me and marked as Exhibits "M" and "N", respectively, to this my Affidavit is the form of letter which I wrote to each of the said persons and a copy of the notice enclosed in such letters. The said letter and notice were mailed to each of the persons mentioned in Exhibits "B", "B1", "E", "F", "G", and "H", to this my Affidavit.

11. I did cause notice of the Organizational Hearings to be held at Malton on the 20th of February, 1974, at Pickering on the 21st of February, 1974 and at Toronto on the 22nd of February, 1974, to be published in certain newspapers. The said notice was published in a newspaper published in the City of Toronto on the 13th day of February, 1974. Now produced and shown to me and marked Exhibits "O" and "P", respectively, to this my Affidavit are a copy of the said notice and a list of the newspapers in which such notice was published.

SWORN before me at the City of  
Toronto in The Municipality of  
Metropolitan Toronto this 15th  
day of March, 1974.

"J.W.N. Delorme"

B.R. Madigan

A Commissioner

*This is Exhibit "A" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*



## **AIRPORT INQUIRY COMMISSION COMMISSION D'ENQUÊTE SUR L'AÉROPORT**

**TAKE NOTICE** that by Order in Council P.C. 1973-3026 dated 5th October, 1973, the Government of Canada established the Airport Inquiry Commission to inquire into and report upon the air transportation needs of the central Ontario market.

The Commission has opened its office at Suite 5401, 54th Floor of the Toronto Dominion Bank Tower, Toronto-Dominion Centre, in the City of Toronto. The manner in which the Commission will conduct this Inquiry may be briefly stated as follows:

1. The Government of Canada will file a summary of all relevant factors, with supporting documents, which the Government considered in reaching its decisions that the transportation needs of the central Ontario market require that there be established another International Airport in addition to the existing Toronto International Airport, Malton, and that the location of the new International Airport be at a site near Pickering Ontario.

2. The Government of Canada documents so filed will be available for inspection by any member of the public at the office of the Commission.

3. All persons, including witnesses for the Government of Canada, who wish to appear before the Commission at any Public Hearing will be required to file at the Commission's office a full written statement of the evidence which they propose to adduce before the Commission. Personnel will be available at the Commission's office to guide members of the public who wish assistance with the preparation of the written statement of their proposed evidence.

4. All written statements of evidence will be available for inspection at the Commission's office by any member of the public in advance of any Public Hearing at which such evidence will be introduced before the Commission.

5. The Commission has established a Practice and Procedure for the orderly conduct of the Inquiry. Copies are available at the Commission's office free of charge or will be mailed to any interested person upon request. This Practice and Procedure has been framed with a view that all persons will have the opportunity before any Public Hearing to know the nature of the evidence that will be submitted to the Commission at each Public Hearing.

6. There will be a public Organizational Meeting before the Public Hearings commence relating to the manner of conducting such Public Hearings. Notice of the time and place of the Organizational Meeting will be given by notice published in newspapers serving the central Ontario market.

7. Public Hearings will take place from time to time and the date and place of each Hearing will be given to the public in advance by notices published in newspapers serving the central Ontario market.

**All inquiries and communications with the Commission  
or Commissioners should be addressed to the  
Registrar-Administrator at the Commission's office.**

**Chairman:**

The Honourable Mr.  
Justice Hugh F.  
Gibson

**General Counsel:**

Ralph S. McCreath,  
Q.C.

**Registrar-  
Administrator:**

J.W.N. Delorme,  
Esq.

**P.O. Box 170, Suite 5401, Toronto Dominion Bank Tower,  
Toronto-Dominion Centre, Toronto, Ontario M5K 1H6  
(416) 369-3881**

*This is Exhibit "A1" referred to in the affidavit of J.W. Norman Delorme sworn before me, This 15 day of March, 1974 "B.R. Madigan". A Commissioner, etc.*



## COMMISSION D'ENQUÊTE SUR L'AÉROPORT

### AIRPORT INQUIRY COMMISSION

**VOUS ÊTES AVISÉ** que, selon l'arrêté en Conseil C.P. 1973-3026, daté du 5 octobre 1973, le Gouvernement du Canada a mis sur pied la Commission d'enquête sur l'aéroport afin d'enquêter et de faire rapport sur les besoins en fait de transport aérien du marché du centre de l'Ontario.

La Commission a établi son siège social à la Tour de la Banque Toronto-Dominion, 54e étage, suite 5401. Centre Toronto-Dominion, dans la ville de Toronto. Voici, brièvement, la façon dont la Commission a l'intention de mener cette enquête:

1. Le Gouvernement du Canada va constituer un résumé de tous les facteurs pertinents, ainsi que tous les documents à l'appui, que le Gouvernement a considérés avant de décider que les besoins en fait de transport aérien du marché du centre de l'Ontario justifient l'édification d'un autre aéroport international, en plus de l'Aéroport International de Toronto, Malton, qui existe présentement, et que ce nouvel aéroport international soit construit après de Pickering, Ontario.

2. Toute personne pourra examiner les documents ainsi constitués par le Gouvernement du Canada au bureau de la Commission.

3. On demande à toute personne, y compris les témoins du Gouvernement du Canada, qui désire comparaître devant la Commission, à l'occasion d'une audience publique, de remplir une déclaration complète, par écrit, du témoignage qu'elle désire présenter à la Commission. Des employés du bureau de la Commission seront disponibles afin d'aider les personnes qui le désirent dans la rédaction de leur témoignage.



4. Toute personne pourra examiner les déposition écrites des témoignages, au bureau de la Commission, avant la date de l'audition publique durant laquelle tel témoignage sera présenté à la Commission.

5. La Commission a établi une série de procédures afin que l'enquête se déroule d'une façon ordonnée. On peut obtenir gratuitement des exemplaires de ces procédures en s'adressant au bureau de la Commission; on peut également poster des exemplaires à toute personne intéressée sur demande. Cette série de procédures a été établie afin que toute personne puisse avoir l'occasion, avant une audition publique, de connaître la nature des témoignages qui seront présentés devant la Commission, au cours de telle audition.

6. On convoquera une assemblée publique avant le début des audiences publiques afin d'informer les gens sur la façon de mener ces audiences. L'endroit et l'heure de cette assemblée publique seront annoncés, sous forme d'avis, dans tous les journaux desservant le marché du centre de l'Ontario.

7. Les auditions publiques auront lieu d'une façon irrégulière; l'endroit et la date de chaque audition seront annoncés à l'avance, sous forme d'avis, dans tous les journaux desservant le marché du centre de l'Ontario.

**Toute demande de renseignement et toute communication  
destinées**

**à la Commission ou aux commissaires, doivent  
être adressées au greffier-administrateur, au bureau de la  
Commission**

<b>Le président,</b>	<b>Le Conseil général,</b>	<b>Le greffier- administrateur</b>
L'Honorable Hugh F. Gibson, ministre de la Justice	Ralph S. McCreath, C.R.	J.W.N. Delorme, Esq.

**C.P. 170, suite 5401, Tour de la Banque Toronto-Dominion,  
Centre Toronto-Dominion, Toronto, Ontario M5K 1H6  
(416) 369-3881**

*This is Exhibit "B" referred to in the affidavit of J. W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*

### **DAILY NEWSPAPERS**

Barrie Examiner	Port Hope Guide
Belleville Intelligencer	St. Catharines Standard
Brampton Daily Times	St. Thomas Times Journal
Brantford Expositor	Sarnia Observer
Cambridge Daily Reporter	Sault Ste. Marie Star
Chatham News	Simcoe Reformer
Guelph Mercury	Stratford Beacon-Herald
Hamilton Spectator	Sudbury Star
Kingston Whig-Standard	Thunder Bay Times-News/
Kirkland Lake Northern Daily	Chronicle Journal
News	Timmins Press
Kitchener-Waterloo Record	Globe & Mail
Lindsay Post	Toronto Star
London Free Press	Toronto Sun
Niagara Falls Review	Welland-Port Colbourne
North Bay Nugget	Tribune
Oakville Daily Journal	Windsor Star
Orillia Packet & Times	Woodstock-Ingersol Sentinel
Oshawa Times	Review
Owen Sound Sun-Times	Ottawa Citizen
Pembroke Observer	Ottawa Journal
Peterborough Examiner	Ottawa Le Droit

### **WEEKLY NEWSPAPERS**

<b>Metropolitan Toronto Area</b>	North York Yorkview Reporter
Agincourt News	Pickering's Bay News
Ajax Guardian	Pickering Post
Ajax News-Advertiser	Richmond Hill Liberal
Markham Economist & Sun	Scarborough Herald
Markham News Advertiser	Scarborough Mirror
Zone 1	Scarborough News
Markham (Stouffville) Tribune	Scarborough Reporter
North York Downsview	Scarborough Sun
Reporter	Scarborough Tribune
North York Mirror	Scarborough West Hill
North York News	Reporter

Thornhill News Advertiser  
Zone 2  
Toronto Beaches  
Toronto Citizen  
Toronto Danforth Tribune  
Toronto East End Express  
Toronto East End News  
Toronto East Weekly  
Toronto East York Times  
Toronto Forest Hill Journal  
Toronto Leaside Tribune  
West Hill News  
Willowdale News Advertiser  
Zone 3  
Willowdale Post  
Willowdale Reporter  
Woodbridge Advertiser

**Other Weekly Newspapers**

Aurora Banner  
Bowmanville Canadian  
Statesman  
Cannington Gleaner  
Gananoque Reporter  
Lindsay Post Mercury  
Lindsay Thursday Post  
Newcastle Reporter  
Newmarket Era  
Orono Weekly Times  
Oshawa This Week  
Peterborough Review  
Port Perry Star  
Uxbridge Times Journal  
Whitby Free Press

**ONTARIO WEEKLIES – 2nd List**

Acton Free Press  
Alliston Herald  
Bolton Enterprise  
Bradford — Topic News  
Magazine  
The Witness and  
South Simcoe  
News  
Brampton — The Bramalea  
Guardian  
Burlington The Post  
Burlington Gazette  
The Erin Advocate  
The Etobicoke Guardian  
The Advertiser  
Fergus-Elora News Express  
Georgetown Herald  
Georgetown Independent  
Grand Valley —The Star and  
Vidette

Malton —North Peel Reporter  
Malton Pilot  
Malton —Malton South Peel-  
Halton Citizen  
Milton — The Cndn. Champion  
The Mississauga News  
Mississauga Times  
The Mississauga Review  
Mount Forest Confederate  
Oakville Beaver  
Orangeville Banner  
Richmond Hill — The Liberal  
Shelburne Free Press &  
Economist  
The Streetsville Booster  
Thornhill — The News  
Advertiser  
Toronto Forest Hill Journal  
Toronto Jewish Press  
Weston-York Times

*Airport Inquiry Commission Report*

Woodbridge & Vaughan News  
Etobicoke Reporter  
New Toronto Advertiser

Toronto Leaside Advertiser  
North Toronto Free Press  
North Toronto Herald

*This is Exhibit "B1" referred to in the affidavit of J. W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*

Le Droit

The Globe & Mail



*This is Exhibit "C" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*



## **AIRPORT INQUIRY COMMISSION COMMISSION D'ENQUÊTE SUR L'AÉOROPORT**

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P.O. Box 170, Suite 5401, Toronto Dominion Bank Tower,  
Toronto-Dominion Centre, Toronto, Ontario M5K 1H6  
Telephone (416)369-3881

**Chairman**

*The Honorable Mr. Justice Hugh F. Gibson*

**Members:**

*Murray V. Jones, Esq.*

*Dr. Howard Pitch*

**General Counsel:**

*Ralph S. McCreath, Q.C.*

**Registrar-Administrator:**

*Norman Delorme, Esq.*

Dear Sir:

The Airport Inquiry Commission authorized by Order in Council P.C. 1973-3026 dated 5th October, 1973, pursuant to its Practice and Procedure, commenced its inquiry on the 12th of December, 1973.

Public notice is being given of this Order in Council and this Practice and Procedure and the commencement of the Inquiry by an advertisement in the various newspapers, both daily and weekly, serving the central Ontario market commencing on 12th December, 1973.

The Commission has requested me to forward to you a copy of the following:

1. The Order in Council,
2. The Commission's Practice and Procedure,
3. A copy of the newspaper advertisement,
4. A list of the persons and places to which this material has been delivered.

Any inquiries or communications with the Commission or Commissioners should be addressed to the Registrar-Administrator at the Commission's office.

Yours truly,

"J.W.N. Delorme"

Registrar-Administrator

**ADDRESS ALL INQUIRIES AND CORRESPONDENCE TO  
THE REGISTRAR-ADMINISTRATOR**

*This is Exhibit "D" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*



## AIRPORT INQUIRY COMMISSION

**AIRPORT INQUIRY COMMISSION**

**CHAIRMAN**

The Honourable Mr. Justice Hugh F. Gibson

**MEMBERS**

Dr. Howard E. Petch

Murray V. Jones, Esq.

**GENERAL COUNSEL**

Ralph S. McCreath, Esq., Q.C.

**ASSOCIATE COUNSEL**

Robert W. Macaulay, Esq., Q.C.

Barry A. Monaghan, Esq.

John D. Richard, Esq.

**INTERNAL COUNSEL**

Arnold S. Weinrib, Esq.

**REGISTRAR-ADMINISTRATOR**

J.W. Norman Delorme, Esq.

**COMMISSION'S OFFICES**

P.O. Box 170, Suite 5401, Toronto Dominion Bank Tower,

Toronto-Dominion Centre

Toronto, Ontario

(416) 369-3881

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## General Information

### GENERAL INFORMATION

The Airport Inquiry Commission, authorized by Order in Council, P.C. 1973-3026 dated 5 October, 1973, opened its offices at Suite 5401, 54th Floor of the Toronto Dominion Bank Tower, Toronto-Dominion Centre, in the City of Toronto on the 3rd day of December, 1973.

The Commission has established a Practice and Procedure for the orderly conduct of the Inquiry. The Practice and Procedure has also been framed with the view that all interested persons are entitled to know the nature of the evidence that will be submitted to the Commission at each Public Hearing and to provide all interested persons with an opportunity to submit all relevant evidence to the Commission.

The following is a short summary of the manner in which the Inquiry will be conducted. For detailed particulars, it will be necessary to consult the Practice and Procedure of the Commission.

After the opening of the Commission offices, the Government of Canada shall file a summary of the relevant factors, with supporting documents, which the Government considered in reaching its decision that the transportation needs of the central Ontario market required that there be established another International Airport, in addition to the Toronto International Airport, Malton, and that the location of the new International Airport be near Pickering, Ontario.

The said Government summary will also contain an outline of any *new evidence* and documents, if any, in response to the various questions into which the Commission is to inquire such as *new evidence* as to the need of a new International Airport, *new evidence* as to the location of a new International Airport and as to whether there is any *new evidence* of any relevant factor that has not been considered by the Government of Canada to date that may appear to affect any decision of the Government of Canada taken to date such as established facts on technology or travel habits.

The said summary of the Government shall also respond to the various questions, set out in the Order in Council, on which the Commission is to receive and report and, if deemed advisable, to make recommendations *on evidence* in relation to the nature of the



new International Airport, the airline traffic sectors which should be allocated to the new International Airport, whether the new Airport is to have another role in addition to an international character, the manner in which the new Airport should be opened, the means of ground access to the new International Airport and whether a downtown terminal or terminals should be established, having regard for passenger convenience, to service Toronto International Airport, or the new International Airport.

Following the filing of the said Government summary all interested persons, including the Government of Canada, who wish to appear before the Commission at Public Hearings and adduce *new evidence* in respect to the matters mentioned in *Paragraph 1* and *any evidence* in respect to the matters mentioned in *Paragraph 2* of the said Order in Council will be required to file at the Commission's offices a full written statement of the evidence which they propose to adduce before the Commission. Personnel will be available at the Commission's offices to assist members of the public who wish assistance in the preparation of the written statement of their proposed evidence.

The 30th January, 1973 was the date that Notice of Confirmation of Intention of the Government of Canada to expropriate the lands for the Pickering Airport was given under The Expropriation Act, Revised Statutes of Canada 1970, Chapter 16 (1st Supplement). Accordingly the words "new evidence" used in the said Order in Council will therefore be interpreted as meaning any evidence of a relevant factor, the evidence of which has arisen since the 30th January, 1973.

"Arise" in this context means something that was not in the mind of the Canadian Government when it took, on 30 January, 1973, the policy decisions referred to in Order in Council, P.C. 1973-3026.

Each Public Hearing by the Commission will deal with a specific topic or a group of related topics, as may be established by the Commission from time to time. The public will be notified well in advance of all Hearings, by means of public notices published in newspapers serving the central Ontario market.

Only persons who have filed a full written statement of the evidence which they propose to adduce before the Commission, within the time limit prescribed by the Commission, will be entitled

to adduce evidence before the Commission on a Public Hearing of the Commission.

There will be Commission Counsel to assist the Commissioners, to help in the orderly conduct of the Inquiry and to ensure that all relevant factors are submitted to the Commission.

All requests for information, and all communications with the Airport Inquiry Commission and any Commissioner shall be directed to the Registrar-Administrator, Airport Inquiry Commission at its offices.

## PRACTICE AND PROCEDURE

### I NEW EVIDENCE

For the purposes of the Practice and Procedure of the Airport Inquiry Commission the words "*new evidence*" mean as follows:

(a) The 30th January, 1973 was the date that Notice of Confirmation of Intention of the Government of Canada to expropriate the lands for the Pickering Airport was given under The Expropriation Act, Revised Statutes of Canada 1970, Chapter 16 (1st Supplement). Accordingly the words "*new evidence*" used in the said Order in Council will therefore be interpreted as meaning any evidence of a relevant factor, the evidence of which has arisen since the 30th January, 1973.

(b) "Arisen" in this context means something that was not in the mind of the Canadian Government when it took, on 30th January, 1973, the policy decisions referred to in Order in Council, P.C. 1973-3026.

### II. FILING OF GOVERNMENT SUMMARY

The Government of Canada will cause to be deposited at the Commission's offices, at such time as may be established by the Commission, a written summary, with supporting documents, as follows:

1. In respect to those matters mentioned in Paragraph 1 of Order in Council, P.C. 1973-3026.

(a) The relevant factors considered by the Government in reaching its decision that the air transportation needs of the central Ontario market require that there be established another International Airport in addition to the Toronto International Airport and the choice of site near Pickering, Ontario, as the location for such new International Airport;

(b) Any *new evidence* in respect to the need for a new International Airport, having regard to the decisions of the Government of Canada that there is a need for a new International Airport to serve the central Ontario market, in relation to the following:

- (i) the expected maximum passenger traffic volume in the domestic, trans-border and international air traffic markets for the year 1980;
  - (ii) the best estimate of rates of growth of passenger traffic volume in the domestic, trans-border and international air traffic markets beyond 1980;
  - (iii) the expansion or reconfiguration of the Toronto International Airport, Malton, within present boundaries, to meet all reasonable needs for the periods from the present to 1980, from the present to 1990 and from the present to 2000, having regard to runway capacity, ground access, terminal capacity and the number of people affected by disturbance from flight operations;
  - (c) Any *new evidence* to prove that the site of a new International Airport near Pickering, Ontario, is not suitable, having regard to the decisions of the Government of Canada that the new International Airport should be located on a site near Pickering, Ontario, having regard to:
    - (i) disturbance from flight operations;
    - (ii) passenger convenience;
    - (iii) regional economic effect;
    - (iv) total environmental effect, positive and negative; and
    - (v) facilities required, including related infrastructures such as roads, railways and helicopter facilities;
  - (d) Any *new evidence* of any relevant factor not previously considered by the Government which may appear to affect any decision of the Government taken to date.
2. In respect to those matters mentioned in Paragraph 2 of Order in Council, P.C. 1973-3026.
- (a) Any *evidence* as to whether the new International Airport should be principally international in character or serve some other function;
  - (b) Any *evidence* as to the airline sectors which should be allocated to the new International Airport in the major first phase of its operation in order to relieve the disturbance caused by flight operations at the International Airport at Malton;
  - (c) Any *evidence* as to whether domestic and United States air

traffic should be served at the new International Airport in addition to the airport having an international role;

(d) *Any evidence* as to whether there should be an opening date of the major first phase of the new Airport in 1980 or later;

(e) *Any evidence* as to whether there should be a partial or limited opening of the operations of the new International Airport prior to 1980;

(f) *Any evidence* as to the nature of ground access to the new International Airport;

(g) *Any evidence* as to the nature of inter-air transportation between Toronto International Airport and the new International Airport;

(h) *Any evidence* as to the need for the establishment of a downtown Toronto terminal or terminals in respect to Toronto International Airport or the new International Airport having regard for passenger convenience.

### III INTERESTED PERSONS AND WITNESSES

1. Any private member of the public or representative of an interested agency, group or corporation and any representative of the federal or any provincial, regional or municipal government who wishes to appear and adduce evidence before the Commission on a particular topic, for which the Commission has published notice requesting evidence statements, shall file at the Commission's offices, on or before the date specified in such notice as the last day for filing of evidence statements, an evidence statement which shall contain the following:

(a) His or her name, address and telephone number;

(b) Whether he or she has a general interest or a special interest in the inquiry and the nature of his or her general or special interest;

(c) Whether his or her evidence will be of a factual nature or of an opinion nature. If his or her evidence will be of an opinion nature, he or she shall specify the special skill which he or she possesses by reason of experience or study which has rendered him or her peculiarly skilled on the topic on which he or she intends to give evidence;



- (d) The particular topic to which his or her evidence will be directed;
  - (e) If the witness's evidence will be directed to any of the matters mentioned in Paragraphs II 1 (a), (b), (c) and (d) hereof, he or she shall specify concisely the basis of his or her claim that his or her evidence is *new evidence*;
  - (f) A full statement of his or her proposed evidence;
  - (g) If he or she intends to introduce any exhibit before the Commission to supplement or explain his or her statement, such as supporting documents, plans, reports, technical memoranda, etc., he or she shall attach to the statement a separate page listing such exhibits;
  - (h) Whether he or she intends to rely in whole or in part on the testimony of an expert, and if so, he or she shall attach to the statement a separate page or pages which shall set out the name, address and phone number of such expert, the qualifications of such expert, the proposed evidence of such expert and a written acknowledgement of such expert that he or she is willing to attend before the Commission and to submit to examination and cross-examination, if required to do so;
  - (i) An acknowledgement that he or she will attend before the Commission and submit to examination and cross-examination, if required to do so;
  - (j) His or her signature.
2. If it is stated, in an evidence statement, that the person filing such evidence statement intends to introduce any exhibits before the Commission, he or she must file a copy of the proposed exhibit at the time of filing his or her evidence statement. If he or she fails to do so, the Commission will not receive such exhibits into evidence.
  3. No oral evidence will be received by the Commission from an individual, or representative of a group, corporation, federal, provincial, regional or municipal government who has not filed an evidence statement.
  4. Any evidence statement which is not in compliance with these provisions will not be accepted for filing but shall be returned for revision, amendment or correction, as the case may be.
  5. Any interested person filing an evidence statement may be

required to appear before the Commission and to give oral evidence thereon and be subject to cross-examination. On any Public Hearing by the Commission, such interested person in giving oral evidence shall be limited to such matters as are set out in his or her evidence statement, except that a witness will be allowed to give any additional evidence as may be necessary to explain or demonstrate the facts set out in his or her evidence statement.

6. The Commission will only receive opinion evidence of a witness where it is indicated that the witness possesses a special skill by reason of experience or study in respect to the particular subject on which he or she intends to express an opinion.

7. If it appears to Commission Counsel, after reviewing evidence statements filed in respect to any particular topic to be considered by the Commission, that there is evidence in addition to the evidence set out in the evidence statements, filed, which should be adduced before the Commission in the public interest, Commission Counsel shall be entitled to call witnesses in respect to such evidence on the Public Hearing into such topic.

8. Commission Counsel shall endeavour to file an evidence statement in respect to such witness, together with any exhibits to be introduced before the Commission through such witness, prior to the date fixed for the Public Hearing at which such witness will testify, provided that failure to do so shall not preclude Commission Counsel from calling such witness and introducing any such exhibits, notwithstanding anything herein to the contrary.

9. The Commission in its discretion may allow reply evidence to rebut evidence given by another witness or witnesses, and in that event, the evidence of such rebuttal witness or witnesses shall be limited exclusively to rebuttal and the provisions of Paragraph III 3 hereof, shall not apply to any such witness or witnesses.

#### **IV INSPECTION AND RECEIPT OF INFORMATION**

Any member of the Public, during public business hours of the Commission's offices, may inspect and receive information from any evidence statement filed and any exhibits filed therewith and receive copies thereof, where feasible, provided such person pays the prescribed costs of such copying. (A copy of this Practice and Procedure and the Order in Council setting up the Airport Inquiry

Commission however will be supplied to any member of the Public free of charge).

## **V COMMISSION COUNSEL**

1. There will be Commission Counsel to assist the Commissioners, to help in the orderly conduct of the inquiry and to ensure that all relevant factors are submitted to the Commission.
2. Commission Counsel will be present at all Organizational Hearings and Public Hearings and shall call such witnesses to give oral evidence as he in his discretion deems advisable. When for example it appears to Commission Counsel that two or more persons have similar evidence on the matter under consideration at any Public Hearing, Commission Counsel, in his discretion, may select one or more persons to give such oral evidence for the benefit of all persons having similar evidence. Commission Counsel may at any Public Hearing file as part of the record of such Hearing any evidence statement without requiring the person who filed such evidence statement to give oral evidence before the Hearing.
- 3 At any Public Hearing any member of the public may request Commission Counsel, in writing, to ask a particular question of a witness, and Commission Counsel may, in his discretion, ask such question.

## **VI OTHER COUNSEL**

Other counsel may appear before the Commission in such capacity as may be determined by the Commission at any Organizational Hearing.

## **VII COMMISSION STAFF**

1. Any member of the public may inquire at the Commission offices of any matter concerning the subject matter of this Inquiry and the Commission staff, prior to any Organizational Hearing or any Public Hearing or during any Public Hearing, will attempt to satisfy any inquiry so made.
2. The Commission staff shall assist any person, who wishes assistance, in the preparation of an evidence statement.

## **VIII ORGANIZATIONAL HEARINGS**

1. There may be one or more Organizational Hearings prior to

any Public Hearing. At the first of such Organizational Hearings, the public will be asked to file, in writing, suggestions for any additional topic, within the terms of reference prescribed in Order in Council P.C. 1973-3026, which he or she wishes the Commission to consider, and the Commission, if it deems appropriate and advisable, may add such topic or topics to the matters to be considered by it and request that evidence be adduced in respect thereof.

2. At the first Organizational Hearing, any private member of the public or representative of any interested agency, group, corporation, federal government, provincial government, regional or municipal government who wishes to have counsel represent their position in any or all of the Public Hearings of the Commission will be invited to request that they be permitted to have counsel participate on their behalf on any or all Public Hearings of the Commission and to have the role of such counsel in such Hearings determined. Any member of the public or representative of any interested agency, group, corporation and any representative of the federal or any provincial, regional or municipal government who intends to make such request at such Organizational Hearing shall file at the Commission's offices at least ten (10) days prior to the date fixed for such Organizational Hearing, a statement which shall set out the role that it is proposed that such counsel will take at any Public Hearing and the reason for the need to be represented by counsel.

3. Any private member of the public or representative of any interested agency, group or corporation or any representative of the federal or any provincial, regional or municipal government who fails to file such statement, or having filed such statement fails to attend or to be represented at such Organizational Hearing in respect to such request, shall be deemed to have waived any right to have counsel attend at any Public Hearing other than in a capacity as an observer.

## **IX THE SUMMONING OF WITNESSES AND THE PRODUCTION OF DOCUMENTS**

The Chairman of the Commission on application may authorize the issue of a subpoena to compel the attendance of a witness before any Public Hearing to give evidence and to produce such



documents and things as may be deemed requisite. Any person may request the Chairman to issue such subpoena by filing written application at the Commission's offices at least fifteen (15) days prior to the date fixed for the Public Hearing at which it is intended to summon such witness. The application shall set out the name and address of the applicant and of the proposed witness, the nature of the evidence, document or thing believed to be possessed by such witness and the reason why the applicant deems the testimony, document or thing in the possession of such witness to be important. The applicant shall be advised of the Chairman's decision, as to whether a subpoena should be issued or not, at least ten (10) days prior to the date fixed for the Public Hearing at which such witness is to be called. If it is the decision of the Chairman to grant such application, it is the responsibility of the applicant to arrange for service of such subpoena and to pay to the witness to be subpoenaed such witness fees and conduct money as are prescribed in the Rules of the Federal Court of Canada.

## **X PUBLIC HEARINGS**

1. The Chairman of the Commission shall from time to time fix a time and place for each Public Hearing and each Organizational Hearing.
2. There shall be more than one Public Hearing and there may be more than one Organizational Hearing.
3. Each Public Hearing shall be confined to receiving evidence on the particular topic or topics fixed for such Hearing, as previously published.
4. The Practice and Procedure to be followed at each Public Hearing and Organizational Hearing shall be in the discretion of the Chairman.

## **XI NOTICES**

1. All notices of Organizational Hearings and Public Hearings shall be published in such newspapers and periodicals serving the Central Ontario market as the Commission in its discretion may determine.
2. The Registrar-Administrator to the Commission shall cause to be published, as aforesaid, the following:
  - (a) Notice of each topic or topics for which the Commission



requests evidence and the last day for the filing of evidence statements in respect to such topic;

(b) Notice of any Organizational Hearing within a reasonable time prior to the date fixed for such Organizational Hearing;

(c) Notice of each Public Hearing at least twenty (20) days prior to the date fixed for any such Hearing.

3. No notice of any adjourned Hearing shall be published unless such adjourned Hearing is adjourned to a date to be fixed.

4. For the purposes of computing any time limit, hereunder, a notice shall be deemed to have been first published in a newspaper or periodical serving the central Ontario market from the date it is first published in a newspaper in the City of Toronto.

## **XII COMMUNICATION WITH COMMISSIONERS**

All communication with the Commission or the Commissioners shall be through and by the Registrar-Administrator.

## **XIII TOPICS**

1. The Commission will conduct its inquiry, within the terms of reference as prescribed by Order in Council, P.C. 1973-3026, on the basis of the following general topics:

- facilities
- technology
- travel habits
- need
- location

The Commission may, from time to time, enlarge, consolidate, delete and modify any of the said general topics.

2. The consideration of each general topic will have the following aspects:

(a) The Commission will only receive *new evidence* in respect to those matters mentioned in Paragraph 1 of the said Order in Council;

(b) The Commission will receive *any and all evidence* in relation to those matters mentioned in Paragraph 2 of the said Order in Council.

The said Order in Council, Order in Council P.C. 1973-3026, is hereunto annexed as Schedule "A".

**XIV PAYMENT OF COSTS OF REPORTS, RESEARCH,  
WITNESS FEES AND WITNESS'S EXPENSES**

The Commission shall only be responsible for payment of costs of research, preparation of reports and witness fees as may be authorized by the Chairman of the Commission on request of Commission Counsel as being necessary to enable Commission Counsel to adduce evidence before the Commission of all relevant factors as required under Paragraph III 7 hereof.

**XV WRITTEN AND ORAL SUBMISSIONS**

On the conclusion of Public Hearings of a general topic, the Commission may, if it deems advisable, request oral or written submissions.

Dated this 3rd day of December, 1973.

**SCHEDULE "A"**



P.C. 1973-3026

5 October, 1973

**PRIVY COUNCIL • CONSEIL PRIVÉ**

WHEREAS the Government of Canada has decided that Toronto International Airport, Malton, will not be expanded beyond its present boundaries in order not to further increase the degree of disturbance from flight operations to the people now living in communities surrounding Toronto International Airport, Malton;

AND WHEREAS the Government of Canada has decided that the air transportation needs of the central Ontario market require that there be established another international airport in addition to Toronto International Airport, Malton;

AND WHEREAS the Government of Canada has chosen a site near Pickering, Ontario to be the location for the new International Airport;

AND WHEREAS it is desired to provide a means of receiving new evidence as to the need for and location of such an airport and new evidence of any relevant factor that has not been considered by the Government of Canada, if available and forthcoming;

AND WHEREAS there are other matters necessarily inter-related to and affected by such decisions in respect of which it is desired that there be an inquiry.

THEREFORE, THE COMMITTEE OF THE PRIVY COUNCIL advise that, pursuant to Part I of the Inquiries Act, the Honourable Mr. Justice Hugh F. Gibson, a Judge of the Federal Court of Canada, of the City of Ottawa in the Province of Ontario, Murray V. Jones, Esquire, of the City of Toronto in the Province of Ontario, and Dr. Howard Petch, Esquire, of the City of Kitchener in the Province of Ontario, be appointed Commissioners under Part I of the Inquiries Act (to be known as the "Airport Inquiry Commission") to inquire into and report upon the air transportation needs of the central Ontario market as follows:

1. In relation to the decisions that there is a need for a new International Airport for the central Ontario market and that the new International Airport be located on the site near

Pickering, Ontario, to receive and record new evidence, if available, and if available and adduced, to report on such new evidence in response to the following questions:

(a) respecting need,

(i) is there any new evidence as to what is the expected maximum passenger traffic volume in the domestic, trans-border and international air traffic markets for the year 1980 and what are the best estimates of rates of growth beyond 1980, and

(ii) is there any new evidence that Toronto International Airport, Malton, can be expanded or reconfigured, within present boundaries, to meet all reasonable needs, having regard to runway capacity, ground access, terminal capacity and the number of people affected by disturbance from flight operations for the period up to 1980, 1990 and 2000;

(b) respecting location, is there any new evidence to prove that the site near Pickering, Ontario is not suitable for the new International Airport for the central Ontario market having regard to

(i) disturbance from flight operations,

(ii) passenger convenience,

(iii) regional economic effect,

(iv) total environmental effect, positive and negative, and

(v) facilities required, including related infrastructures such as roads, railways, guideways and helicopter facilities, and

(c) generally, is there any new evidence of any relevant factor that has not been considered by the Government of Canada, such, for example, as established facts on technology or travel habits, that may appear to affect any decision of the Government of Canada taken to date?

2. To receive and report on any evidence adduced and, if deemed advisable, to make recommendations in so far as they are within federal legislative jurisdiction in response to the following questions:

(a) should the new International Airport be principally international in character or should it serve some other function,

- (b) what airline traffic sectors or parts thereof should be allocated to the new International Airport in the major first phase in order to relieve the disturbance caused by flight operations at Malton,
  - (c) to what extent should domestic and United States traffic be served at the new International Airport in addition to the airport having an international role,
  - (d) should the opening date of the major first phase be 1980 or later,
  - (e) should there be a partial or limited opening of the new International Airport prior to 1980,
  - (f) what should be the nature of
    - (i) the ground access to the New International Airport, and
    - (ii) the inter-airport transportation between Toronto International Airport, Malton, and the new International Airport, and
  - (g) from the point of view of passenger convenience, should a downtown terminal or terminals be established in respect of Toronto International Airport, Malton or the new International Airport?
3. For the purpose of reporting under subparagraphs 1(a), (b) and (c), to receive new evidence, if any is forthcoming and adduced in accordance with the practices and procedures of the Commission, from any private member of the public, any interested agency, any group or corporation and any representative of the federal or any provincial, regional or municipal government who desires to give evidence.
  4. For the purpose of reporting and if deemed advisable making recommendations under paragraph 2, to receive evidence, if forthcoming and adduced in accordance with the practices and procedures of the Commission, from any private member of the public, any interested agency, any group or corporation and any representative of the federal or any provincial, regional or municipal government who desires to give evidence.

THE COMMITTEE further advise that



*Airport Inquiry Commission Report*

- A. the Honourable Mr. Justice Hugh F. Gibson be appointed Chairman of the Airport Inquiry Commission;
- B. the Chairman be authorized to prescribe and adopt such practices and procedures for all purposes of the Commission as he may from time to time deem expedient for the proper conduct of the inquiry and to vary those practices and procedures from time to time;
- C. the Commissioners be authorized to sit at such times and at such places and to view such other locations as the Chairman may from time to time decide;
- D. the Commissioners be authorized to engage the services of such accountants, engineers, technical advisers or other experts, clerks, reporters and assistants as they deem necessary or advisable, and also the services of counsel to aid and assist the Commissioners in the inquiry, at such rates of remuneration and reimbursement as may be approved by the Treasury Board;
- E. the Commissioners be authorized to rent such space for offices and hearing rooms as they deem necessary or advisable at such rental rates as may be approved by the Treasury Board; and
- F. the Commissioners be authorized to submit interim reports to the Governor in Council from time to time and be requested to submit a final report to the Governor in Council with all reasonable despatch, if possible within twelve months.

THE COMMITTEE further advise that, pursuant to section 37 of the Judges Act, the Honourable Mr. Justice Hugh F. Gibson be authorized to act as Commissioner for the purposes of the said inquiry.

CERTIFIED TO BE A TRUE COPY — COPIE CERTIFIÉE CONFORME

“R. G. ROBERTSON”

CLERK OF THE PRIVY COUNCIL — LE GREFFIER DU CONSEIL PRIVÉ

*This is Exhibit "D" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*



## AIRPORT INQUIRY COMMISSION COMMISSION D'ENQUÊTE SUR L'AÉROPORT

**TAKE NOTICE** that by Order in Council P.C. 1973-3026 dated 5th October, 1973, the Government of Canada established the Airport Inquiry Commission to inquire into and report upon the air transportation needs of the central Ontario market.

The Commission has opened its office at Suite 5401, 54th Floor of the Toronto Dominion Bank Tower, Toronto-Dominion Centre in the City of Toronto. The manner in which the Commission will conduct this Inquiry may be briefly stated as follows:

1. The Government of Canada will file a summary of all relevant factors, with supporting documents, which the Government considered in reaching its decisions that the transportation needs of the central Ontario market require that there be established another International Airport in addition to the existing Toronto International Airport, Malton, and that the location of the new International Airport be at a site near Pickering, Ontario.
2. The Government of Canada documents so filed will be available for inspection by any member of the public at the office of the Commission.
3. All persons, including witnesses for the Government of Canada, who wish to appear before the Commission at any Public Hearing will be required to file at the Commission's office a full written statement of the evidence which they propose to adduce before the Commission. Personnel will be available at the Commission's office to guide members of the public who wish assistance with the preparation of the written statement of their proposed evidence.

4. All written statements of evidence will be available for inspection at the Commission's office by any member of the public in advance of any Public Hearing at which such evidence will be introduced before the Commission.

5. The Commission has established a Practice and Procedure for the orderly conduct of the Inquiry. Copies are available at the Commission's office free of charge or will be mailed to any interested person upon request. This Practice and Procedure has been framed with a view that all persons will have the opportunity before any Public Hearing to know the nature of the evidence that will be submitted to the Commission at each Public Hearing.

6. There will be a public Organizational Meeting before the Public Hearings commence relating to the manner of conducting such Public Hearings. Notice of the time and place of the Organizational Meeting will be given by notice published in newspapers serving the central Ontario market.

7. Public Hearings will take place from time to time and the date and place of each Hearing will be given to the public in advance by notices published in newspapers serving the central Ontario market.

**All inquiries and communications with the Commission  
or Commissioners should be addressed to the  
Registrar-Administrator at the Commission's office.**

**Chairman:**

The Honourable Mr.  
Justice

**General Counsel:**

Ralph S. McCreath, Q.C.

**Registrar-Administrator:**

J.W.N. Delorme, Esq.

**P.O. Box 170, Suite 5401, Toronto Dominion Bank Tower,  
Toronto-Dominion Centre, Toronto, Ontario M5K 1H6  
(416)369-3881**

*This is Exhibit "D" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*

### DAILY NEWSPAPERS

Barrie Examiner  
Belleville Intelligencer  
Brampton Daily Times  
Brantford Expositor  
Cambridge Daily Reporter  
Chatham News  
Guelph Mercury  
Hamilton Spectator  
Kingston Whig-Standard  
Kirkland Lake Northern Daily  
News  
Kitchener-Waterloo Record  
Lindsay Post  
London Free Press  
Niagara Falls Review  
North Bay Nugget  
Oakville Daily Journal  
Orillia Packet & Times  
Oshawa Times  
Owen Sound Sun-Times  
Pembroke Observer  
Peterborough Examiner  
Port Hope Guide  
St. Catharines Standard  
St. Thomas Times Journal  
Sarnia Observer  
Sault Ste. Marie Star  
Simcoe Reformer  
Stratford Beacon-Herald  
Sudbury Star  
Thunder Bay Times-News/  
Chronicle Journal  
Timmins Press  
Globe & Mail  
Toronto Star  
Toronto Sun

Welland-Port Colbourne  
Tribune  
Windsor Star  
Woodstock-Ingersol Sentinel  
Review  
Ottawa Citizen  
Ottawa Journal  
Ottawa Le Droit

### WEEKLY NEWSPAPERS

**Metropolitan Toronto Area**  
Agincourt News  
Ajax Guardian  
Ajax News-Advertiser  
Markham Economist & Sun  
Markham News Advertiser  
Zone 1  
Markham (Stouffville) Tribune  
North York Downsview  
Reporter  
North York Mirror  
North York News  
North York Yorkview Reporter  
Pickering's Bay News  
Pickering Post  
Richmond Hill Liberal  
Scarborough Herald  
Scarborough Mirror  
Scarborough News  
Scarborough Reporter  
Scarborough Sun  
Scarborough Tribune  
Scarborough West Hill  
Reporter  
Thornhill News Advertiser

## *Airport Inquiry Commission Report*

### Zone 2

Toronto Beaches  
Toronto Citizen  
Toronto Danforth Tribune  
Toronto East End Express  
Toronto East End News  
Toronto East Weekly  
Toronto East York Times  
Toronto Forest Hill Journal  
Toronto Leaside Tribune  
West Hill News  
Willowdale News Advertiser

### Zone 3

Willowdale Post  
Willowdale Reporter  
Woodbridge Advertiser

### **Other Weekly Newspapers**

Aurora Banner  
Bowmanville Canadian  
Statesman  
Cannington Gleaner  
Gananoque Reporter  
Lindsay Post Mercury  
Lindsay Thursday Post  
Newcastle Reporter  
Newmarket Era  
Orono Weekly Times  
Oshawa This Week  
Peterborough Review  
Port Perry Star  
Uxbridge Times Journal  
Whitby Free Press

### **ONTARIO WEEKLIES — 2nd List**

Acton Free Press  
Alliston Herald  
Bolton Enterprise

Bradford — Topic News  
Magazine  
The Witness and  
South Simcoe  
News

Brampton — The Bramalea  
Guardian  
Burlington The Post  
Burlington Gazette

The Erin Advocate  
The Etobicoke Guardian  
The Advertiser  
Fergus-Elora News Express  
Georgetown Herald  
Georgetown Independent  
Grand Valley — The Star and  
Vidette

Malton — North Peel Reporter  
Malton Pilot

Malton — Malton South Peel-  
Halton Citizen

Milton — The Cndn. Champion  
The Mississauga News  
Mississauga Times  
The Mississauga Review  
Mount Forest Confederate  
Oakville Beaver  
Orangeville Banner  
Richmond Hill — The Liberal  
Shelburne Free Press &  
Economist  
The Streetsville Booster  
Thornhill — The News  
Advertiser

Toronto Forest Hill Journal  
Toronto Jewish Press  
Weston-York Times  
Woodbridge & Vaughan News  
Etobicoke Reporter



New Toronto Advertiser  
Toronto Leaside Advertiser

North Toronto Free Press  
North Toronto Herald

*Airport Inquiry Commission Report*

*This is Exhibit "D" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*

Le Droit

The Globe & Mail

*This is Exhibit "D" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*

## THE EXECUTIVE COUNCIL OF ONTARIO

Hon. W.G. Davis, Premier

Hon. G. Kerr, Q.C., Provincial Secretary for Justice

Hon. R.S. Welch, Q.C., Provincial Secretary for Social Development

Hon. A.B.R. Lawrence, Q.C., Provincial Secretary for Resources Development

Hon. J. White, Treasurer of Ontario and Minister of Economics and Intergovernmental Affairs

Hon. E. Winkler, Chairman, Management Board of Cabinet

Hon. W.A. Stewart, Minister of Agriculture and Food

Hon. D.A. Bales, Q.C., Attorney General

Hon. J. McNie, Q.C., Minister of Colleges and Universities

Hon. R. Brunelle, Minister of Community and Social Services

Hon. J.T. Clement, Minister of Consumer and Commercial Relations

Hon. C.J.S. Apps, Minister of Correctional Services

Hon. T.L. Wells, Minister of Education

Hon. J.A.C. Auld, Minister of The Environment

Hon. J.W. Snow, Minister of Government Services

Hon. R.T. Potter, M.D., Minister of Health

Hon. C. Bennett, Minister of Industry and Tourism

Hon. F. Guindon, Minister of Labour

Hon. L.E. Bernier, Minister of Natural Resources

Hon. A. Grossman, Minister of Revenue

Hon. J. Yaremko, Q.C., Solicitor General

Hon. G.R. Carton, Q.C., Minister of Transportation and Communications

*Airport Inquiry Commission Report*

Hon. Margaret Birch, Minister Without Portfolio

C.E. Brannan, Secretary of the Cabinet

## **DEPUTY MINISTERS OF ONTARIO**

Mr. T.R. Hilliard, Deputy Minister of Agriculture and Food

Mr. F.W. Callaghan, Q.C., Deputy Minister of the Attorney General

Dr. J.G. Parr, Deputy Minister of Colleges and Universities

Mr. T.M. Eberlee, Deputy Minister of Community and Social Services

Mr. J.K. Young, Deputy Minister of Consumer and Commercial Relations

Mr. D. Sinclair, Deputy Minister of Correctional Services

Dr. E.E. Stewart, Deputy Minister of Education

Mr. Everett Biggs, Deputy Minister of The Environment

Mr. J.C. Thatcher, Deputy Minister of Government Services

Mr. S.W. Martin, Deputy Minister of Health

Mr. Fred J. Pillgrem, Deputy Minister of Industry and Tourism

Mr. R.D. Johnston, Deputy Minister of Labour

Mr. Walter O. Macnee, Deputy Minister of Natural Resources

Mr. D.A. Crosbie, Deputy Minister of Revenue

Mr. R.M. Warren, Deputy Minister of the Solicitor General

Mr. A.T.C. MacNab, Deputy Minister of Transportation and Communications

Mr. H.I. Macdonald, Deputy Minister of Treasury Economics and Intergovernmental Affairs



*This is Exhibit "D" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*

## LEGISLATIVE ASSEMBLY OF ONTARIO

ALLAN, James N.  
APPS, Hon. Syl  
AULD, Hon. James A.C.  
BALES, Hon. Dalton  
BECKETT, Dick  
BELANGER, J. Albert  
BENNETT, Hon. Claude  
BERNIER, Hon. Leo  
BIRCH, Hon. Mrs. Margaret  
BOUNSALL, Ted  
BRAITHWAITE, Leonard A.  
BREITHAUPT, J.R.  
BRUNELLE, Hon. Rene  
BULBROOK, James E.  
BURR, Fred A.  
CAMPBELL, Mrs. Margaret  
CARRUTHERS, Alex  
CARTON, Hon. Gordon R.  
CASSIDY, Michael  
CLEMENT, Hon. John T.  
DAVIS, Hon. Wm. G.  
DAVISON, Norman  
DEACON, D.M.  
DEANS, Ian  
DOWNER, Rev. A.W.  
DREA, Frank  
DUKSZTA, Jan  
DYMOND, Matthew B.  
EATON, Robert  
EDIGHOFFER, Hugh  
EVANS, D. Arthur  
EWEN, Donald  
FERRIER, Rev. William  
FOULDS, Jim  
GAUNT, Murray  
GERMA, Bud

GILBERTSON, Brent  
GISBORN, Reg.  
GIVENS, Phil  
GOOD, Edward R.  
GROSSMAN, Hon. Allan  
GIUNDON, Hon. Fernand  
HAGGERTY, Ray  
HAMILTON, Maurice  
HANDLEMAN, Sidney  
HAVROT, Edward  
HENDERSON, Lorne C.  
HODGSON, R. Glen  
HODGSON, William  
IRVINE, Donald R.  
JESSIMAN, James  
JOHNSTON, R.M.  
KENNEDY, R. Douglas  
KERR, Hon. George A.  
LANE, John  
LAUGHREN, Floyd  
LAWLOR, Patrick D.  
LAWRENCE, Hon. A.B.R.  
LELUK, Nick  
LEWIS, Stephen  
MacBETH, John  
MacDONALD, Donald C.  
MAECK, Lorne  
MARTEL, Elie W.  
McILVEEN, Charles  
McKEOUGH, Hon. W.D.  
McNEIL, R.K.  
McNIE, Hon. Jack  
MEEN, Arthur K.  
MILLER, Frank  
MORNINGSTAR, Ellis P.  
MORROW, Donald H.

NEWMAN, Bernard  
NEWMAN, William  
NIXON, George A.  
NIXON, R.F.  
MUTTALL, Wm.  
PARROTT, Harry C.  
PATERSON, Donald A.  
POTTER, Hon. R.T., M.D.  
REID, T. Patrick  
REILLY, Leonard M.  
RENWICK, James  
REUTER, Hon. Allan E.  
RHODES, John  
RIDDELL, Jack  
ROLLINS, Clarke T.  
ROOT, John  
ROWE, Russell D.  
ROY, Albert  
RUSTON, Richard F.  
SARGENT, Eddie  
SCRIVENER, Margaret Mrs.  
SHULMAN, Dr. Morton

SINGER, Vernon M.  
SMITH, Gordon E.  
SMITH, John R.  
SMITH, Richard S.  
SNOW, Hon. James W.  
SPENCE, John P.  
STEWART, Hon. W.A.  
STOKES, J.E.  
TAYLOR, James  
TIMBRELL, Dennis  
TURNER, John  
VILLENEUVE, Osie F.  
WALKER, Gordon  
WARDLE, Thomas  
WELCH, Hon. Robert  
WELLS, Hon. Thomas L.  
WHITE, Hon. John H.  
WINKLER, Hon. Eric A.  
WISEMAN, Douglas  
WORTON, Harry  
YAKABUSKI, Paul J.  
YAREMKO, Hon. John  
YOUNG, Fred

*This is Exhibit "E" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*

## **FEDERAL MEMBERS OF PARLIAMENT — ONTARIO**

Alexander, Lincoln M.	Hamilton West
Alkenbrack, A.D.	Frontenac-Lennox and Addington
Andras, Hon. Robert K., Minister of Manpower and Immigration	Port Arthur
Arrol, Ian	York East
Atkey, Ron	St. Paul's
Baker, Walter	Grenville-Carleton
Beattie, Duncan M.	Hamilton Mountain
Beatty, Perrin	Wellington-Grey-Dufferin- Waterloo
Blais, J.J.	Nipissing
Blackburn, Derek	Brant
Blenkarn, Don	Peel South
Brewin, Andrew	Greenwood
Broadbent, Edward	Oshawa-Whitby
Buchanan, Judd	London West
Caccia, Chas. L.	Davenport
Cafik, Norman A., Parliamentary Secretary to Minister of National Health and Welfare	Ontario
Cossit, Tom	Leeds
Cullen, Jack	Sarnia-Lambton
Danforth, H.W.	Kent-Essex
Danson, Barnett J.	York North
Darling, Stan	Parry Sound-Muskoka
Dick, Paul	Lanark-Renfrew-Carleton
Ellis, J.R.	Hastings
Ethier, Denis	Glengarry-Prescott-Russell
Faulkner, Hon. James Hugh, Secretary of State	Peterborough
Fleming, Jim	York West
Foster, Maurice	Algoma
Frank, William C.	Middlesex

Gauthier, Jean-Robert	Ottawa East
Gilbert, John	Broadview
Gillespie, Hon. Alastair, Minister of Industry, Trade and Commerce	Etobicoke
Gillies, James	Don Valley
Gray, Hon. Herb, Minister of Consumer and Corporate Affairs	Windsor West
Grier, Terry	Toronto-Lakeshore
Haidasz, Hon. Stanley, Minister of State	Parkdale
Hales, A.D.	Wellington
Hamilton, Hon. Alvin	Qu'Appelle-Moose Mountain
Harney, John	Scarborough West
Hees, Hon. George	Prince Edward-Hastings
Hellyer, Hon. Paul	Trinity
Higson, Kenneth J.	Lincoln
Holmes, J.R.	Lambton-Kent
Hopkins, Leonard, Parliamentary Secretary to Minister of National Defence	Renfrew North-Nipissing East
Hueglin, Joe	Niagara Falls
Hymmen, Keith	Kitchener
Jarvis, Bill	Perth-Wilmot
Jelinek, Otto	High Park-Humber Valley
Jerome, J.A.	Sudbury
Kempling, Bill	Halton-Wentworth
Knowles, William	Norfolk-Haldimand
Lamoureux, Hon. Lucien, Speaker	Stormont-Dundas
Lawrence, Allan	Northumberland-Durham
Lewis, David	York South
MacDonald, Miss Flora	Kingston and the Islands
MacGuigan, Mark, Parliamentary Secretary to Minister of Manpower and Immigration	Windsor-Walkerville
Madill, Ellwood	Peel-Dufferin-Simcoe

*Airport Inquiry Commission Report*

McKinley, R.E.	Huron
McRae, Paul E.	Fort William
Mitges, Gus	Grey-Simcoe
Morgan, Trevor	St. Catharines
Munro, Hon. John C., Minister of Labour	Hamilton East
Nesbitt, W.B.	Oxford
O'Connor, Terry	Halton
O'Sullivan, Sean	Hamilton-Wentworth
Penner, B. Keith	Thunder Bay
Peters, Arnold	Timiskaming
Poulin, Hugh	Ottawa Centre
Railton, S. Victor	Welland
Reid, John M., Parliamentary Secretary to President of the Privy Council	Kenora-Rainy River
Reilly, Peter	Ottawa West
Rodriguez, John	Nickel Belt
Roy, Jean-R.	Timmins
Rynard, P.B.	Simcoe North
Saltsman, Max	Waterloo-Cambridge
Scott, W.C.	Victoria-Haliburton
Sharp, Hon. Mitchell, Secretary of State for External Affairs	Eglinton
Stackhouse, Reg.	Scarborough East
Stanbury, Hon. Robert, Minister of National Revenue	York-Scarborough
Stevens, Sinclair	York-Simcoe
Stewart, Ralph	Cochrane
Stollery, Peter	Spadina
Symes, Cyril	Sault Ste. Marie
Turner, Charles, Parliamentary Secretary to Minister of Labour	London East
Turner, Hon. John N., Minister of Finance	Ottawa-Carleton
Walker, J.E.	York Centre



Whelan, Hon. E.F., Minister of Agriculture	Essex-Windsor
Whicher, Ross	Bruce
Wise, John	Elgin

## *Airport Inquiry Commission Report*

*This is Exhibit "F" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*

### **Chairmen/Mayors/Reeves, Clerks, Wardens of various Municipalities**

#### **County of Ontario**

##### **City**

Oshawa Mayor J.H. Poticary, City Hall, 50 Centre St. S.  
Clerk, L.R. Barrand, City Hall, 50 Centre St. S.

##### **Towns**

Ajax Mayor C.A. Mason, 65 Harwood Ave.  
Clerk, M.B. Beauchamp, 65 Harwood Ave.  
Uxbridge Mayor T.R. Newton, 24 Second Ave.  
Clerk, J.L. Lumgair, 12 Spruce St.  
Whitby Mayor D.G. Newman, 405 Dundas St. W.  
Clerk, W.H. Wallace, 405 Dundas St. W.

##### **Village**

Beaverton Reeve, W. Wright, Beaverton  
Clerk, J.S. Robertson, Box 513  
Cannington Reeve, A.G. McPhail, 38 Laidlaw St. W.  
Clerk, W.G. Brandon, 38 Laidlaw St. W.  
Pickering Reeve, W.G. McLean, 22 Sherwood Rd. W.  
Clerk, H.E. Irwin, 22 Sherwood Rd. W.  
Port Perry Reeve, R.A. Kenny, Box 209  
Clerk, J.N. Brodie, Box 209

##### **Township**

Brock Reeve, K. Rynard, R.R. Sunderland  
Clerk, K. Harrison, R.R. Sunderland  
Mara Reeve, P. Forbes, R.R.1, Brechin  
Clerk, A. Newman, R.R.1, Brechin  
Pickering Reeve, J.R. Williams, 1710 Kingston Rd.  
Clerk, D.J. Plitz, 1710 Kingston Rd.  
Rama Reeve, W.A. Stitt, Box 83, Washago  
Clerk, A.S. Langman, Box 83, Washago  
Reach Reeve, A.W. Catton, R.R.2, Port Perry

Scott	Clerk, V. Malcolm, R.R.4, Port Perry Reeve, N. Lyons, R.R.2, Uxbridge Clerk, R.G. Kester, Sandford
Scugog	Reeve, H.C. Crowell, Box 630, Port Perry Clerk, S.H. Chandler, R.R.3, Port Perry
Thorah	Reeve, R. Morrison, R.R.2, Beaverton Clerk, J.S. Robertson, Box 513, Beaverton
Uxbridge	Reeve, R.L. Nesbitt, R.R.1, Claremont Clerk, D.S. Kennedy, Goodwood
Whitby East	Reeve, J. Howden, R.R.1, Oshawa Clerk, M.W. Goldie, Columbus Warden, J.A. Howden, R.R.1, Oshawa Clerk, W.G. Manning, 605 Rossland Rd. E. Whitby
<b>County of Peel</b>	
<b>Town</b>	
Brampton	Mayor, J.E. Archdekin, 24 Queen St. E. Clerk, J. Galway, 24 Queen St. E.
Mississauga	Mayor, C.M. Murray, 1 City Centre Dr. Clerk, J.T. Corney, 1 City Centre Dr.
Port Credit	Mayor, J. Saddington, 161 Lakeshore Rd. W. Clerk, W.H. Munden, 161 Lakeshore Rd. W.
Streetsville	Mayor, Mrs. H. McCallion, 327 Queen St. S. Clerk, L.M. McGillvary, 327 Queen St. S.
<b>Village</b>	
Bolton	Reeve, H.M. Allan, 23 Mill St. Clerk, E.D. Hersey, 23 Mill St.
Caledon East	Reeve, G.S. Proctor, Caledon East Clerk, Mrs. Z.R. Hughston, Box 59
<b>Township</b>	
Albion	Reeve, I. McMullin, Box 40, Bolton Clerk, C. Patterson, Box 40, Bolton
Caledon	Reeve, E.S. Sibbald, R.R.1, Inglewood Clerk, V.L. Davison, Box 120, Caledon
Chinguacousy	Reeve, R.C. Williams, 150 Central Park Dr., Bramalea

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Toronto Gore	Clerk, K.R. Richardson, 150 Central Park Dr., Bramalea
	Reeve, M. Robinson, R.R.9, Mississauga
	Clerk, M. Byrne, R.R.5, Bolton
	Warden, J.I. McMullin, 1 Wellington St. E., Brampton
	Clerk, H.H. Rutherford, 1 Wellington St. E., Brampton

### **County of Halton**

#### **Town**

Acton	Mayor, L.A. Duby, 194 Churchill Rd. N. Clerk, J.T. Hurst, 40 Mill St. E.
Burlington	Mayor, G.W. Harrington, Box 5013 Clerk, W.K. Sims, Box 5013
Georgetown	Mayor, W.R. Smith, 36 Main St. N. Clerk, G.D. Pritchard, 36 Main St. N.
Milton	Mayor, B. Best, 310 Main St. E. Clerk, J. McGeachie, 251 Main St. E.
Oakville	Mayor, B.H. Barrett, Box 310 Clerk, D.W. Brown, Box 310

#### **Township**

Esquesing	Reeve, T. Hill, 571 Main St., Glen Williams Clerk, D. French, R.R.1, Georgetown
Nassagaweya	Reeve, Mrs. A.J. MacArthur, Box 111, Campbellville Clerk, E.S. Cuddie, R.R.1, Campbellville Warden, Mrs. A.J. MacArthur, 491 Steeles Ave., Milton Clerk, G. Brown, 491 Steeles Ave., Milton

### **Regional Municipality of York**

York	Chairman, G.E. Wright, Box 147, Newmarket Clerk, R.N. Vernon, Box 147, Newmarket
Towns	
Aurora	Mayor, Mrs. E. Buck, 27 Yonge St. S. Clerk, K.B. Rodger, 27 Yonge St. S.

Markham	Mayor, A. Roman, 8911 Don Mills Rd. Clerk, N.J. Pickard, 8911 Don Mills Rd.
Newmarket	Mayor, R. Forhan, Box 204 Clerk, G.M. Blight, Box 204
Richmond Hill	Mayor, W.C. Lazenby, 56 Yonge St. N. Clerk, R. Lynett, 56 Yonge St. N.
Vaughan	Mayor, G.A. Williams, 2141 Major MacKenzie Dr., Maple Clerk, F.G. Jackman, 2141 Major MacKenzie Dr., Maple
Whitchurch- Stouffville	Mayor, G. Ratcliff, Box 419, Stouffville Clerk, R.E. Corner, Box 419, Stouffville
Township Georgina	Mayor, J.O. Dales, Pefferlaw Clerk, Mrs. E.M. Waggett, Pefferlaw
Gwillimbury East	Mayor, Mrs. G. Rolling, Box 11, Mount Albert Clerk, J.F. Hopkins, Sharon
King	Mayor, Mrs. M. Britnell, Nobleton Clerk, H.G. Rose, Nobleton
<b>Municipality of Metropolitan Toronto</b>	
Metro	Chairman, P. Godfrey, 2nd Floor, City Hall, Toronto
Metro	Clerk, G.M. Foster, 2nd Floor, City Hall Toronto
Toronto (City)	Mayor, D.E. Crombie, City Hall, Toronto Clerk, G.T. Batchelor, City Hall, Toronto
Boroughs Etobicoke	Mayor, D. Flynn, 550 Burnhamthorpe Rd., Etobicoke Clerk, K.F. Pennington, 550 Burnhamthorpe Rd., Etobicoke
Scarborough	Mayor, P. Cosgrove, 2001 Eglinton E., Scarborough Clerk, C.A. Tripp, 2001 Eglinton E., Scarborough



## *Airport Inquiry Commission Report*

York	Mayor, P. White, 2700 Eglinton Ave. W., Toronto Clerk, H.G. Courtman, 2700 Eglinton Ave. W., Toronto
York East	Mayor, W.L. Blair, 550 Mortimer Ave., Toronto Clerk, Miss D.M. Tucker, 550 Mortimer Ave., Toronto
York North	Mayor, M. Lastman, 5000 Yonge St., Willowdale Clerk, E. Roberts, 5000 Yonge St., Willowdale

### **County of Wellington**

City	
Guelph	Mayor, N. Jary, City Hall, Guelph Clerk, W.G. Hall, City Hall, Guelph  Warden, L. Murray, Court House, Guelph Clerk, Mrs. V.B. Myers, Court House, Guelph

### **County of Victoria**

Town	
Lindsay	Mayor, H.D. Logan, Town Hall Clerk, W.B. Bates, Town Hall Warden, M.J. Moore, R.R.2, Cameron Clerk, C. McKay, Court House, Lindsay

### **County of Simcoe**

City	
Barrie	Mayor, Mrs. D. Parker, Box 400 Clerk, B.R.J. Straughan, Box 400
Orillia	Mayor, J.V. Andre, Box 7 Clerk, B.D. Bayne, Box 7
Town	
Alliston	Mayor, G.R. McCague, 191 Albert St. W. Clerk, L.L. Whiteside, Box 910

Bradford	Mayor, J. Magani, Box 430 Clerk, Miss M. Davey, Box 160
Collingwood	Mayor, H.J. Bell, Box 157 Clerk, H.H. Homuth, Box 157
Midland	Mayor, H. Boyd, 245 Dominion Ave. Clerk, W.A. Hack, 245 Dominion Ave. Warden, J. Wales, County Admin. Bldg., Worsley St., Barrie Clerk, G.R. Watson, County Admin. Bldg., Worsley St., Barrie

### **County of Peterborough**

City Peterborough	Mayor, P.H. Turner, City Hall, Peterborough Clerk, S. Hendry, City Hall, Peterborough Warden, J.A. Reynolds, Apsley Clerk, Mrs. J.A. Spurway, Court House, Peterborough
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### **County of Perth**

City Stratford	Mayor, K.A. Culliton, City Hall, Stratford Clerk, L.R. Graham, City Hall, Stratford Warden, J.L. McKay, R.R.2, Stratford Clerk, J.A. Bell, Court House, Stratford.
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### **County of Oxford**

City Woodstock	Mayor, L.J. Cook, Box 40, Woodstock Clerk, K. Miller, Box 40, Woodstock
Separated Town Ingersoll	Mayor, G.B. Henry, 34 King St. W. Clerk, W.A. MacIntyre, 34 King St. W.
Town Tillsonburg	Mayor, B.R.P. Jones, 55 Parkwood Dr. Clerk, K.E. Holland, Town Hall Warden, W.L. Dickson, R.R.2, Burgessville

## *Airport Inquiry Commission Report*

Clerk, G.R. Staples, Box 397, Court House,  
Woodstock

### **County of Norfolk**

#### **Towns**

Delhi	Mayor, A.H. Sayeau, 317 Queen St. Clerk, J.A. Stinson, 10 Hill St. Simcoe
Port Dover	Mayor, D. Richardson, 243 Main St. Clerk, M.A. Long, 243 Main St.
Simcoe	Mayor, A.W. Judd, 45 Peel St. Clerk, D.H. Gilbertson, 45 Peel St.
Waterford	Mayor, S.F. Mott, 169 Leamon St. Clerk, A.C. Guiler, 76 Main St. S. Warden, L.A. Hunter, Box 601, Simcoe Clerk, D. Ciona, Box 601, Simcoe

### **County of Middlesex**

#### **City**

London	Mayor, Mrs. J.E. Bigelow, Box 5035, London Clerk, W.S. Ross, Box 5035, London
--------	--

#### **Towns**

Parkhill	Mayor, W. Waters, Parkhill Clerk, K.D. Muir, Box 9
Strathroy	Mayor, L. Condon, 52 Frank St. Clerk, Y. Forget, 52 Frank St. Warden, G.W. Laidlaw, R.R.7, London Clerk, H. Eastman, 367 Ridout St. N., London

### **County of Lennox and Addington**

#### **Town**

Napanee	Mayor, L.A. Smart, Napanee Clerk, M.C. Graham, Box 1059 Warden, B. Weese, Centreville Clerk, D.J. Perry, Box 580, Napanee
---------	--

**County of Huron**

**Town**

Goderich                      Warden, R.V. Pattison, Court House,  
Goderich  
Clerk, J.G. Berry, Court House, Goderich

**County of Hastings**

**City**

Belleville                      Mayor, Mrs. A.R. Jeffrey, City Hall,  
Belleville  
Clerk, A.S. Stalker, City Hall, Belleville

**Separated Town**

Trenton                      Mayor, D. McDonald, Box 490, Municipal  
Office  
Clerk, O.W. Larry, Box 490, Municipal  
Office  
Warden, H. Casey, R.R.6, Belleville  
Clerk, C.E. Bateman, Court House, Belleville

**County of Haldimand**

**Town**

Caledonia                      Mayor, J.E. Gillespie, Caledonia  
Clerk, K.M. Berscht, Box 359

Dunnville                      Mayor, C.I. Lundy, Box 187, Municipal  
Bldg.  
Clerk, F. Scholfield, Box 187, Municipal  
Bldg.  
Warden, Mrs. L.J. Miller, 125 Kneider E.,  
Dunnville  
Clerk, K.W. Benner, Box 159, Cayuga

**County of Frontenac**

**City**

Kingston                      Mayor, G. Speal, City Hall, Kingston  
Clerk, T.J. McKibbin, City Hall, Kingston

## *Airport Inquiry Commission Report*

### **Townships**

#### **Kingston**

Reeve, J.E. McEwan, 676 Truman Dr.,  
Kingston  
Clerk, D.A. Gordon, 935 Sydenham Rd.,  
Kingston  
Warden, J.G. Neddow, R.R.1, Battersea  
Clerk, J.E. Taylor, Court House, Kingston

### **County of Elgin**

#### **City**

##### **St. Thomas**

Mayor, E.J. Rice, Box 520, St. Thomas  
Clerk, R.A. Barrett, Box 520, City Hall, St.  
Thomas  
Warden, R.N. Johnston, R.R.1, Warsville  
Clerk, H.L. Johnson, Court House, St.  
Thomas

### **County of Dufferin**

#### **Town**

##### **Orangeville**

Mayor, V.E. Large, 87 Broadway  
Clerk, R.B. Lackey, 87 Broadway  
Warden, H. Lennox, Court House,  
Orangeville  
Clerk, H.W. Baker, Court House, Orangeville

### **United Counties of Northumberland and Durham**

#### **Towns**

##### **Bowmanville**

Mayor, I.M. Hobbs, 12 Centre St.  
Clerk, J.M. McIlroy, 40 Temperance St.

##### **Campbellford**

Mayor, M.W. Tanner, Box 1056  
Clerk, D.A. Holyoake, Box 1056

##### **Cobourg**

Mayor, J.A. Heenan, 95 Abbott Blvd.  
Clerk, B.W. Baxter, 107 King St. W.

##### **Port Hope**

Mayor, M. Wladyka, Box 117  
Clerk, W.E. Hunt, Box 117

#### **Township**

##### **Darlington**

Reeve, G.B. Rickard, R.R.4, Bowmanville  
Clerk, W.E. Rundle, Hampton



Warden, J.W. Banister, Municipal Hall,  
Cobourg  
Clerk, K.J. Symons, 869 William St.,  
Cobourg

### **County of Wentworth**

#### **City**

Hamilton Mayor, V.K. Copps, 71 Main St. W., City  
Hall  
Clerk, E.A. Simpson, 71 Main St. W., City  
Hall

#### **Towns**

Dundas Mayor, H.M. Everett, Town Hall Main St.  
Clerk D. Briault, Town Hall, Main St.  
Stoney Creek Mayor, N. Curry, 13 Lake Ave. S.  
Clerk, Mrs. B.C. Kipps, 13 Lake Ave. S.

#### **Townships**

Ancaster Reeve, A. Bowes, 300 Wilson St., Ancaster  
Clerk, L.V. Hayden, 300 Wilson St.,  
Ancaster  
Saltfleet Reeve, G.H. Dean, R.R.2, Fruitland  
Clerk, J. Butler, 777 Highway 8, Fruitland  
Warden, J.M. Southall, Court House, 50  
Main St. E., Hamilton  
Clerk, R.E.F. Eddy, Court House, 50 Main  
St. E., Hamilton

### **County of Prince Edward**

#### **Town**

Picton Mayor  
Clerk, A.M. Jarvis, Box 1670  
Warden, R. Thompson, R.R.7, Belleville  
Clerk, T.S. Walker, Drawer 1550, Picton

### **County of Brant**

#### **City**

Brantford Mayor, C.R. Bowen, City Hall, Brantford  
Clerk, R. Cooper, City Hall, Brantford

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Warden, V.C. Young, Court House,  
Brantford  
Clerk, R.H. Foulds, Court House, Brantford

**Regional Municipality of Waterloo**

Reg. Mun. Waterloo Chairman, J.A. Young, Marsland Centre,  
8th Floor, Waterloo  
Clerk, A.W. Woods, Marsland Centre, 8th  
Floor, Waterloo

**City**

Cambridge

Mayor, Mrs. C. Millar, Box 669, Galt-  
Cambridge  
Clerk, A.L. Habermehl, Box 669, Galt-  
Cambridge

Kitchener

Mayor, S.M. McLennan, City Hall,  
Kitchener  
Clerk, R.W. Pritchard, City Hall, Kitchener

Waterloo

Mayor, D.P. Meston, Municipal Office,  
Marsland Centre, Waterloo  
Clerk, D.F. Preston, Municipal Office,  
Marsland Centre, Waterloo

**Regional Municipality of Ottawa-Carleton**

Reg. Mun. Ottawa-

Carleton

Chairman, D.M. Coolican, 222 Queen St., Ottawa  
Clerk, W.H. Brunette, 222 Queen St., Ottawa

**City**

Ottawa

Mayor, P. Benoit, City Hall, Ottawa  
Clerk, A.T. Hastey, City Hall, Ottawa

Vanier

Mayor, G. Grandmaitre, 297 Dupuis St.,  
Vanier  
Clerk, R. Poulin, 297 Dupuis St., Vanier

**Townships**

Gloucester

Reeve, R.W. MacQuarrie, Box 333, R.R.4,  
Ottawa

Clerk, F. Meldrum, Box 333, R.R.4, Ottawa

Nepean

Reeve, A.S. Haydon, 3825 Richmond Rd.,  
Ottawa

Clerk, D.E. Hobbs, 3825 Richmond Rd.,  
Ottawa

**Regional Municipality of Niagara**

Reg. Mun. Niagara    Chairman, J.E. Campbell, 150 Berryman  
Ave., St. Catharines  
Clerk, W.J. Dawson, 150 Berryman Ave., St.  
Catharines

**City**

Niagara Falls    Mayor, G. Bukator, City Hall, 4310 Queen  
St.  
Clerk, J.L. Collinson, City Hall, 4310 Queen  
St.

Port Colborne    Mayor, J. Buscarino, City Hall, 239 King St.  
Clerk, J.H. Wilhelm, City Hall, 239 King St.

St. Catharines    Mayor, J.L. Reid, City Hall, Church St.  
Clerk, H.J. Cove, City Hall, Church St.

Welland    Mayor, A. Pietz, City Hall, 411 East Main St.  
Clerk, D.G. Barrett, City Hall, 411 East  
Main St.

**Towns**

Fort Erie    Mayor, J.M. Teal, 200 Jarvis St.  
Clerk, J.A. Sauer, 200 Jarvis St.

Grimsby    Mayor, H.E. Costello, Box 159  
Clerk, R.C. Bracher, Box 159

Lincoln    Mayor, D.J. Bucknall, Box 1030, Beamsville,  
P.Q.  
Clerk, M.F. Duc, Box 1030, Beamsville, P.Q.

Niagara-on-the-  
Lake    Mayor, J. Froese, R.R.3, Niagara-on-the-Lake  
Clerk, J.Y. Fleming, Box 100, Virgil

Pelham    Mayor, H.E. Black, Box 400, Fonthill  
Clerk, L.C. Hunt, Box 400, Fonthill

Thorold    Mayor, Dr. D.A. McMillan, Municipal Office  
Clerk, C.H. Ort, Municipal Office

*This is Exhibit "G" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*

## RADIO STATIONS

Ajax — CHOO (Oshawa)	(FM), CJRC (FR.), CKOY,
Barrie — CKBB	CKBY-FM, CFGO
Belleville — CJBQ & CJBE-FM	Owen Sound — CFOS
Brampton — CHIC & CHIC-FM	Parry Sound — Huntsville —CKAR (Parry Sound)
Brantford — CKPC & CKPC-FM	Pembroke — CHOV
Brockville — CFJR	Peterborough — CHEX & CHEX-FM, CKPT
Chatham — CFCO (Wallaceburg)	St. Catharines — CHSC & CHSC-FM, KCTB
Cobourg — CHUC (Port Hope)	St. Thomas — CHLO
Collingwood — CKCB	Sarnia — CHOK, CKJD
Galt — CFTJ (Cambridge)	Simcoe — CFRS
Guelph — CJOY & CJOY-FM	Smith Falls — CJET & CJET-FM
Hamilton — CHAM, CHML, CKDS-FM, CKOC	Stratford — CJCS
Kingston — CFRC & CFRC-FM, CKLC & CKLC-FM, CKWS & CKWS-FM	Tillsonburg — CKOT & CKOT-FM
Kitchener — CKKW & CFCA-FM, CHYM & CHYM-FM	Toronto — CFRB, CKFM, CKFH, CHIN & CHIN-FM, CKEY, CJRT-FM, CFGM (Richmond Hill), CJBC (FR.) CBL & CBL-FM, CHUM & CHUM-FM, CFTR, CHFI-FM, CBC English Services Division & Toronto Area
Leamington — CHYR	Welland — CHOW (Port Colborne)
Lindsay — CKLY	Windsor — CKWW, CKLW, CBE (CBC), CHEF (CBC) (FR.)
London — CKSL, CJBK, CFPL & CFPL-FM	Wingham — CKNX
Midland — CKMP	Woodstock — CKOX, CJCJ
Niagara Falls — CJRN	
North Bay — CFCH & CKAT	
Oakville — Mississauga — CHWO	
Orillia — CFOR	
Oshawa — CKLB & CKQS-FM	
Ottawa — CBO & CBO-FM (CBC), CFRA (AM), CFMO	

**ONTARIO TELEVISION STATIONS**

CKVR-TV — Barrie	CHOV-TV — Pembroke
CHCH-TV — Hamilton	CHEX-TV — Peterborough
CKWS-TV — Kingston	CBC ENGLISH SERVICES
CKCO-TV — Kitchener	DIVISION & TORONTO
CFPL-TV — London	AREA — Toronto
CHNB-TV — North Bay	CICA-TV — Toronto
CKNY-TV — North Bay	CBLT (CBC) — Toronto
CJOH-TV — Ottawa	CFTO-TV — Toronto
CBOT & CBOFT (CBC) — Ottawa	CITY-TV — Toronto
CBOT (CBC) — Ottawa	CKNX-TV — Wingham
CBOFT (CBC) (French) — Ottawa	CKLW-TV — Windsor



*Airport Inquiry Commission Report*

*This is Exhibit "H" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March 1974. "B.R. MADIGAN". A Commissioner, etc.*

**12 Dec. 1973**

Gordon Willson,  
Box 10,  
Whitevale, Ontario

Mr L.D. Almack,  
Box 51,  
Toronto-Dominion Centre.

Alex Telegdi, M.T.P.I.C.  
Principal Planner  
General Plan & Research  
Division,  
City of Toronto Planning  
Board,  
E-22 City Hall,  
Toronto, M5H 2N2

Robert Whitelaw,  
Thomson Newspapers,  
Thomson Building,  
65 Queen St. W.,  
24th Floor,  
Toronto, M5H 2M8

Mrs. Sillaste,  
2657 Lundene Rd.,  
Mississauga

R.W. Spicer,  
Newsroom,  
Windsor Star,  
Windsor

C.P. Wyman  
21 Fleeceline Rd.  
Toronto, M8V 2K4

Judge T.M. Moore,  
Greenwood

Mr. C.G. Watkins,  
Law Reform Commission of  
Canada,  
130 Albert St.,  
Ottawa, Ontario. K1A 0L6

Mr. Russell Gwilliam,  
Toronto Area Airport Project,  
Thomson Building,  
65 Queen St. W.,  
15th Floor,  
Toronto

Mr. Peter McCowan,  
R.R. 1,  
Markham

Dr. C.M. Godfrey,  
484 Church St.,  
Suite 109,  
Toronto

**13 Dec. 1973**

Toronto International Airport  
Hotel Association,  
5875 Airport Rd.,  
Mississauga  
Att'n: Denis Buchanan

**14 Dec. 1973**

P. Gryniewski,  
911 Streamway Cres.,  
Mississauga

Thomas Whitelaw,  
Philips Planning & Eng.  
3215 Queen Elizabeth Way,  
Burlington, L7R 3Y2

Arthur Howie,  
1424 Mayview Ave.,  
Ottawa

H.W. Liebig,  
55 Dundas E.,  
Mississauga

Capt. J.B. Hubbard,  
80 Madowlane Dr.,  
Kitchener

**17 Dec. 1973**

T.G. Dunkin,  
Market Development  
DeHavilland Aircraft of  
Canada, Limited  
Downsview

**18 Dec. 1973**

Donald MacLeod,  
Senior Archeologist,  
Historical Sights Branch,  
Room 6508  
Whitney Block,  
Toronto

Barney Danson, M.P.,  
Room 440C  
House of Commons,  
Ottawa, K1A 0A6

Ross Charles, Publisher,  
Pilot Publishing Ltd.,  
7535 Bath Rd.,  
Malton

Mr. Tim Lash,  
c/o Science Council of Canada,  
150 Kent St.,  
Ottawa

Harvey E.L. Bath,  
Ashburn

**19 Dec. 1973**

Mrs. Barry Hughes,  
801 Oliva St.,  
Pickering, L1W 2V9

Alvin Disalvo,  
R.R.1,  
Gormley

**24 Dec. 1973**

Ron Vrancart,  
Ministry of Natural Resources,  
Central Region,  
352 Yonge St. N.,  
Richmond Hill

**27 Dec. 1973**

Howard S. Lee Real Estate Ltd.,  
Box 402,  
Unionville.

Don Beach  
145 King St. W.,  
23rd Floor,  
Toronto-Dominion Centre

Stevens & Stevens,  
48 Yonge St.,  
Suite 300,  
Toronto,  
M5E 1G6  
Miss Walker

**28 Dec. 1973**

Mr. J. McDermott,  
701 Don Mills Rd.,  
# 103  
Don Mills

*Airport Inquiry Commission Report*

**2 Jan. 1974**

John H. Deacon, P. Eng.,  
Director of Engineering,  
Kenting Earth Sciences  
Limited,  
380 Hunt Club Rd.,  
Ottawa, K1G 3N3

H.S. MacMillan,  
19 Tettenhall Rd.,  
Islington, M9A 2C2

Mrs. V. Etherington,  
39 Toledo Rd.,  
Etobicoke, M9C 2H4

Mr. F.G. Houselander,  
9 Markland Cres.,  
Etobicoke

Mr. A. Passafiume,  
Hwy. 48,  
R.R.3,  
Markham  
Bill Crothers,

Box 214,  
Markham

J.A. Young,  
Regional Chairman,  
Regional Municipality of  
Waterloo,  
Marsland Centre,  
Waterloo,  
N2J 4G7

**3 Jan. 1974**

Dr. S.V. Railton, M.P.,  
235 West Block  
House of Commons,  
Ottawa.

Dr. D.A. McMillan,  
60 Albert St.,  
Mayor of Thorold.

**4 Jan. 1974**

Donald S. Rickerd,  
Box 122,  
Toronto-Dominion Centre

Ian Hamer,  
Whitby

**7 Jan. 1974**

Mrs. K.G. Haynes,  
704 Clarence Dr.,  
Whitby

**9 Jan. 1974**

Elizabeth Feltes,  
Pickering Cedarwood Impact  
Study,  
by City of Toronto,  
Planning Board

Mr. Stephen Grant,  
Cameron Brewin & Scott,  
121 Richmond St. W.,  
Toronto

Mrs. Miriam Mittermaier,  
81 Kendleton Dr.,  
Rexdale

Mrs. B. Davies,  
Cherrywood.

**10 Jan. 1974**

Vern Morrow,  
R.R.3,  
Stouffville.

Larry Johnson,  
Ajax News Advertiser,  
130 Commercial Ave.,  
Ajax, Ontario.

**14 Jan. 1974**

Mr. Edward Leman,  
Leman Group Inc.,  
87 St. Nicholas St.,  
Toronto, M4Y 1W8

Mr. Sandford F. Borins,  
8 Amory St., Apt. 2,  
Cambridge, Mass. 02139

**18 Jan. 1974**

Dr. N. McArthur,  
Geography Dept.,  
Atkinson College,  
York University,  
4700 Keele St.,  
Downsview

**21 Jan. 1974**

Mrs. Virginia Etherington,  
SANA  
39 Toledo Rd.,  
Etobicoke, M9C 2H4

Charlene Gamble,  
R.R. #3,  
Newmarket

**24 Jan. 1974**

Brian Ambler,  
Ambler-Courtney Ltd.

**25 Jan. 1974**

Thomas Rye,  
144 Marla Ct.,  
Richmond Hill, Ontario

W.D. Waite,  
City of Mississauga Planning  
Dept.,  
1 Civic Centre Dr.,  
Mississauga.

Michelle Taradis,  
CBC

Mr. R.G. Day,  
1545 Brentano Blvd.,  
Mississauga

**28 Jan. 1974**

Michelle Taradis  
CBC (in French)

**30 Jan. 1974**

Prof. Henry Best,  
R.R.1,  
Moffat, Ontario.

**1 Feb. 1974**

A.S. Watson,  
Marketing Director,  
Hawker Sidley Aviation,  
Kingston-on-Thames

**4 Feb. 1974**

Virginia Etherington,  
39 Toledo Rd.,  
Etobicoke, M9C 2H4

Mrs. S. Walker,  
48 Yonge St.,  
Suite 300,  
Toronto, M5E 1G6

**6 Feb. 1974**

Ted Culp,  
Toronto

*Airport Inquiry Commission Report*

**7 Feb. 1974**

Fred Lombardo,  
Civic Airport Committee,  
Hamilton

**19 Feb. 1974**

Mr. R.G. Day,  
1547 Brentano Blvd.,  
Mississauga

Mr. F.F. Gallant,  
Legal Branch,  
Ministry of Agriculture and  
Food,  
Room 1205,  
1200 Bay Street,  
Toronto, Ontario.

**20 Feb. 1974**

Bill Bradley,  
Transportation Planners,  
Dept. of Planning &  
Development,  
Reg. Municipality of Durham,  
Oshawa Shopping Centre,  
Oshawa

**25 Feb. 1974**

K.S. Tisshaw,  
Director of Public Relations,  
Northern Electric,  
Box 300,  
Brampton.

**1 Mar. 1974**

Dept. of Transport,  
Toronto International Airport,  
P.O. Box 6003,  
Administration Building,  
Toronto AMF, Ontario

**3 Mar. 1974**

Anne Cochran,  
2142 Canterbury Dr.,  
Burlington

**5 Mar. 1974**

Mr. George Olah,  
City Solicitor for Mississauga,  
Mississauga  
Loretta Schocrylas,  
273 Kennedy Ave.,  
Toronto



*This is Exhibit "I" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*



## AIRPORT INQUIRY COMMISSION COMMISSION D'ENQUÊTE SUR L'AÉROPORT

### Notice of Hearings

THE AIRPORT INQUIRY COMMISSION will hold  
Organizational Hearings on:

**Wednesday, 20th February, 1974**

**Thursday, 21st February, 1974**

**Friday, 22nd February, 1974**

for the purpose of organizing Public Hearings to receive evidence in respect to the matters set out in Order in Council, P.C. 1973-3026, dated 5th October, 1973.

### Hearings at Malton

On **Wednesday, 20th February, 1974**, the first Organizational Hearing of the Commission will be held at:

Howard Johnson Hotel, Dixon Road and 27 Highway, 8:30 p.m.

The purpose of the Hearing on this date is to determine the procedure that will be followed at the Public Hearing and the role of any Counsel at such Hearing in respect to the following matters:

The Government of Canada has made forecasts as to the volume of passenger, air cargo, and aircraft movements in the central Ontario market to the year 2000. On the basis of these forecasts, (without receiving any new evidence at this time as to the validity of these forecasts as such evidence will be received in subsequent hearings), in relation to the following questions of fact, is there any new evidence that Toronto International Airport, Malton, can be expanded or reconfigured within present boundaries to meet all reasonable needs to the year 1980, to the year 1990, and to the year 2000, that is to say:

1. Can the forecast growth of air traffic be met without increasing the number of people affected by noise disturbance from aircraft?

2. Can the runway capacity be extended to meet the forecast growth of air traffic?
3. Can the terminal capacity be increased to meet the forecast growth of air traffic?
4. Can ground access be provided to meet the forecast growth of air traffic?

The Commission will commence its Public Hearing on the above questions on:

**Monday, 18th March, 1974**, Howard Johnson Hotel, Dixon Road & Highway 27, 6:00 p.m.

Evidence statements in respect to the above questions should be filed on or before 4th March, 1974, in accordance with the Commission's Practice and Procedure.

### **Hearings at Pickering**

On Thursday, 21st February, 1974, the second Organizational Hearing of the Commission will be held at:  
Pickering High School, Church St. North, Town of Pickering, 8:30 p.m.

In respect to the following questions:

In relation to the following three questions of fact, is there any new evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:

- (1) Is this site not suitable because of the number of people that will be affected by noise disturbance from aircraft?
- (2) Is this site not suitable because of regional economic effect?
- (3) Is this site not suitable because of total environmental effect?

The Commission will commence its Public Hearing on the above questions on:

**Monday, 8th April, 1974** Pickering High School, Pickering, Church St. North, 6:00 p.m.

Evidence statements in respect to the above questions should be filed on or before 25th March, 1974, in accordance with the Commission's Practice and Procedure.

### **Hearings at Toronto**

On **Friday, 22nd February, 1974**, the third Organizational Hearing of the Commission will be held at: Council Chamber, Old City Hall, Queen Street West, Toronto, 2:30 p.m.

In respect to the following matters:

The Government of Canada has made forecasts as to the traffic volume of passenger, air cargo and aircraft movements to the year 2000.

The questions for consideration are:

- A (1) Is there any new evidence as to what is the expected maximum passenger traffic volume in the domestic, trans-border and international air traffic markets for the year 1980?
- (2) For the year 1990?
- (3) For the year 2000?
- B In relation to the following questions, is there any new evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:
  - (1) Is this site not suitable because of passenger inconvenience?
  - (2) Is this site not suitable because of the on-site and off-site facilities that will be required to be built, such as roads, railways, guideways, helicopter facilities, etc?

The Commission will commence its Public Hearing on the above questions on:

**Monday, 22nd April, 1974**, Council Chamber, Toronto, Old City Hall, Court Room 42, 6:00 p.m.

Evidence statements in respect to the above questions should be filed on or before 8th April, 1974, in accordance with the Commission's Practice and Procedure.

No evidence will be adduced or admitted at any Organizational Hearings, but the conduct and procedure for each Public Hearing will be established.

The Public may file, in writing, suggestions for any additional topic or questions within the terms of reference prescribed in Order in Council. P.C. 1973-3026.

## *Airport Inquiry Commission Report*

Representation by counsel and all other information in connection with the Hearings is contained in the Commission's Practice and Procedure, copies of which may be obtained, free of charge, at the Commission's offices as noted below.

**Chairman:**

The Honourable Mr. Justice Hugh F. Gibson

**General Counsel:**

Ralph S. McCreath,  
Q.C.

**Registrar-**

**Administrator:**

J.W.N. Delorme,  
Esq.

**All inquiries and communications with the Commission or  
Commissioners  
should be addressed to the Registrar-Administrator at the  
Commission's offices.**

**Toronto Office**

P.O. Box 170, Suite 5401,  
Toronto Dominion Bank  
Tower,  
Toronto-Dominion  
Centre,  
Toronto, Ontario.  
M5K 1H6  
(416) 369-3881

**Malton Office**

Howard Johnson Hotel  
Dixon Road and  
Highway 27,

**Pickering Office**

Highway 7 & Brock Road  
Brougham, Ontario  
(416) 942-1551

*This is Exhibit "11" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974 "B.R. MADIGAN". A Commissioner, etc.*



## **AIRPORT INQUIRY COMMISSION COMMISSION D'ENQUÊTE SUR L'AÉROPORT**

### **Avis d'audiences**

LA COMMISSION D'ENQUÊTE SUR L'AÉROPORT tiendra  
des audiences d'organisation:

**Le mercredi 20 février 1974**

**Le jeudi 21 février 1974**

**Le vendredi 22 février 1974**

dans le but d'organiser des audiences publiques pour recevoir des preuves concernant les questions traitées dans l'arrêté en Conseil. P.C. 1973-3026, daté le 5 octobre 1973.

### **Audiences à Malton**

Le mercredi 20 février 1974 aura lieu la première audience d'organisation de la Commission à l'endroit suivant:

L'Hôtel Howard Johnson, chemin Dixon et route 27 à 8h 30 p.m.

Le but de l'audience à cette date est de déterminer la marche à suivre lors de l'audience publique et le rôle de tout avocat-conseil aux dites audiences en ce qui concerne les sujets suivants:

Le Gouvernement du Canada a fait des prévisions quant au volume de passagers, de cargo aérien et de déplacements aériens dans le marché du centre ontarien jusqu'à l'an 2000. D'après ces prévisions (sans recevoir présentement aucune nouvelle preuve justificatrice puisque de telles preuves seront reçues lors d'audiences subséquentes), concernant les questions de fait suivantes, y-a-t-il de nouvelles preuves que l'aéroport international de Toronto, Malton, puisse être agrandi ou réaménagé en deçà des limites actuelles afin de répondre à tous les besoins raisonnables jusqu'à l'an 1980, jusqu'à l'an 1990 et même jusqu'à l'an 2000, c'est-à-dire:

1. Peut-on satisfaire l'accroissement prévu de la circulation aérienne sans qu'il y ait une augmentation du nombre de personnes qui seraient affectées par le bruit des avions?



2. La capacité de la piste de décollage peut-elle être augmentée pour satisfaire les besoins grandissants de la circulation aérienne?
3. La capacité du terminus peut-elle être augmentée de façon à satisfaire les besoins grandissants prévus par l'augmentation de la circulation aérienne?
4. Peut-on fournir l'accès par voie terrestre afin de satisfaire les exigences prévues par l'augmentation de la circulation aérienne?

La Commission commencera ses audiences publiques traitant des questions précitées le:

**LUNDI 18 MARS 1974**, à l'hôtel Howard Johnson, Chemin Dixon et route 27 à 6h 00 p.m.

Toutes les preuves concernant les questions susmentionnées doivent être déposées le ou avant le 4 mars 1974 conformément aux pratiques et procédures de la Commission.

#### **Audiences à Pickering**

Le **jeudi 21 février 1974**, aura lieu la deuxième audience d'organisation de la Commission à l'endroit suivant:

Ecole secondaire Pickering, rue Church nord, ville de Pickering à 8h 30 p.m.

En ce qui concerne les questions suivantes: Concernant les trois questions de fait suivantes y a-t-il de preuves nouvelles pour établir que l'emplacement près de Pickering, Ontario, n'est pas propice pour le marché du nouvel aéroport international pour l'Ontario central, c'est-à-dire:

- (1) L'emplacement n'est-il pas convenable à cause du nombre de gens qui seront affectés par le bruit des avions?
- (2) Cet emplacement n'est-il pas convenable à cause des effets économiques régionaux?
- (3) Cet emplacement n'est-il pas convenable à cause l'effet total de l'environnement?

La Commission commencera ses audiences publiques concernant les questions précitées:

**Le lundi 8 avril 1974**, à l'école secondaire Pickering, Pickering, rue Church nord, à 6h 00 p.m

Les preuves relatives aux questions susmentionnées devraient être déposées le ou avant le 25 mars 1974 conformément aux pratiques et procédures de la Commission.

### **Audiences à Toronto**

Le **vendredi 22 février 1974**, aura lieu la troisième audience d'organisation de la Commission à l'endroit suivant:

La salle du Conseil, ancien Hôtel de ville, rue Queen ouest, Toronto, à 2h 30 p.m.

En ce qui concerne les questions suivantes: Le Gouvernement du Canada a fait des prévisions quant au volume de passagers, de cargo aérien et de déplacements aériens jusqu'à l'an 2000. Les questions à considérer sont les suivantes:

A (1) Y a-t-il de nouvelles preuves quant au volume maximal de passagers prévus des marchés aériens international, et domestique au-delà de la frontière pour l'an 1980?

(2) Pour l'an 1990?

(3) Pour l'an 2000?

B En ce qui concerne les questions suivantes, y a-t-il de nouvelles preuves pour établir que l'emplacement près de Pickering, Ontario, n'est pas propice pour le marché du nouvel aéroport international pour l'Ontario central, c'est-à-dire:

(1) L'emplacement n'est-il pas convenable à cause de résultats fâcheux pour les passagers?

(2) L'emplacement n'est-il pas convenable à cause des services publics et commodités qui devront y être aménagés sur les lieux et hors des lieux tels que des routes, voies ferres, les commodités pour hélicoptère, etc.?

La Commission commencera ses audiences publiques concernant les questions précitées:

**Le lundi 22 avril 1974**, en la salle du Conseil, Toronto, ancien Hôtel de ville, Salle d'audience 42. à 6h 00 p.m.

Les preuves relatives aux questions susmentionnées devraient être déposées le ou avant le 8 avril 1974 conformément aux pratiques et procédures de la Commission

Aucune preuve ne sera fournie ou admise à toute audience d'organisation, mais on établira la marche à suivre et les procédures pour chacune des audiences publiques.

Le public peut déposer, par écrit, des suggestions pour tout autre sujet additionnel ou questions compris dans le mandat décrit dans l'arrêté en Conseil, P.C. 1973-3026

Toute représentation par avocat-conseil ainsi que tout autre renseignement concernant les audiences se trouvent dans les pratiques et procédures de la Commission. Vous pouvez en obtenir des exemplaires gratuitement en vous adressant au bureau de la Commission à l'adresse ci-dessous.

<b>Le président:</b>	<b>Avocat-conseil général</b>	<b>Archiviste- administrateur:</b>
Le très honorable: Hugh F. Gibson	Ralph S. McCreath, C.R.	M.J.W.N. Delorme

**Toutes les demandes de renseignements et les communications  
avec la Commission  
ou les commissaires doivent être adressées  
à l'archiviste-administrateur au bureau de la Commission.**

**Bureau de Toronto**  
B.P. 170, suite 5401

Tour de la banque  
Toronto-Dominion  
Centre Toronto-  
Dominion  
Toronto, Ontario.  
M5K 1H6  
(416) 369-3881

**Bureau de Malton**  
Hôtel Howard  
Johnson  
et Chemin Dixon et  
route 27

**Bureau de Pickering**  
Route 7 et Chemin  
Brook  
Brougham, Ontario  
(416) 942-1551

*This is Exhibit "J" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*



## AIRPORT INQUIRY COMMISSION COMMISSION D'ENQUÊTE SUR L'AÉROPORT

---

P.O. Box 170, Suite 5401, Toronto Dominion Bank Tower,  
Toronto-Dominion Centre, Toronto, Ontario M5K 1H6

Telephone (416)369-3881

**Chairman**

*The Honorable Mr. Justice Hugh F. Gibson*

**Members:**

*Murray V. Jones, Esq.*

*Dr. Howard Pitch*

**General Counsel:**

*Ralph S. McCreath, Q.C.*

**Registrar-Administrator:**

*Norman Delorme, Esq.*

February 13, 1974.

Dear

*Re: Airport Inquiry Commission*

Enclosed is a Schedule of Hearings of the Airport Inquiry Commission (which was constituted by Order in Council P.C. 1973-3026, dated 5th October, 1973), together with a copy of its Practice and Procedure.

At the Hearings, by the enabling Order in Council, the Commission is directed "to inquire into and report upon the air transportation needs of the central Ontario market" involving (1) under Phase I, in respect to "need" and "location" whether there is any new evidence relating to the matters set out in paragraph 1 of the Order in Council, and (2) under Phase II, in respect to all matters set out in paragraph 2 of the Order in Council, to hear any evidence and "to make recommendations in, so far as they are within Federal legislative jurisdiction".

In order that the Report of the Commission at the conclusion of its Hearings may be comprehensive under the headings in both Phase I and Phase II it is desirable that evidence be adduced before the Commission by persons from the Province of Ontario especially in relation to matters which are exclusively within their respective legislative and administrative fields, or in which their respective fields overlap with such of the Government of Canada.

We are therefore taking this additional means of inviting the relevant Province of Ontario and Municipal authorities to adduce evidence before the Airport Inquiry Commission in respect to any of the matters within the Commission's terms of reference as prescribed by the said Order in Council.

Yours Truly,  
"Hugh F. Gibson"

**ADDRESS ALL INQUIRIES AND CORRESPONDENCE TO  
THE REGISTRAR-ADMINISTRATOR**



*This is Exhibit "K" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*



## **AIRPORT INQUIRY COMMISSION COMMISSION D'ENQUÊTE SUR L'AÉROPORT**

### **SCHEDULE OF HEARINGS**

#### **COMMISSION'S OFFICES**

P.O. Box 170, Suite 5401, Toronto Dominion Bank Tower,  
Toronto-Dominion Centre  
Toronto, Ontario  
(416) 369-3881



**AIRPORT INQUIRY COMMISSION  
COMMISSION D'ENQUÊTE SUR L'AÉROPORT**

**CHAIRMAN**

The Honourable Mr. Justice Hugh F. Gibson

**MEMBERS**

Dr. Howard E. Petch

Murray V. Jones, Esq.

**GENERAL COUNSEL**

Ralph S. McCreath, Esq., Q.C.

**ASSOCIATE COUNSEL**

Robert W. Macaulay, Esq., Q.C.

Barry A. Monaghan, Esq.

John D. Richard, Esq.

**INTERNAL COUNSEL**

Arnold S. Weinrib, Esq.

Wayne C. Gay, Esq.

**REGISTRAR-ADMINISTRATOR**

Norman Delorme, Esq.

**COMMISSION'S OFFICES**

P.O. Box 170, Suite 5401, Toronto Dominion Bank Tower,  
Toronto-Dominion Centre

Toronto, Ontario

(416) 369-3881

## PHASE I

1. The Government of Canada has made forecasts as to the volume of passenger, air cargo, and aircraft movements in the central Ontario market to the year 2000. On the basis of these forecasts, (without receiving any new evidence at this time as to the validity of these forecasts as such evidence will be received at subsequent hearings), in relation to the following questions of fact, is there any new evidence that Toronto International Airport, Malton, can be expanded or reconfigured within present boundaries to meet all reasonable needs to the year 1980, to the year 1990, and to the year 2000, that is to say:

- 1) Can the forecast growth of air traffic be met without increasing the number of people affected by noise disturbance from aircraft?
- 2) Can the runway capacity be extended to meet the forecast growth of air traffic?
- 3) Can the terminal capacity be increased to meet the forecast growth of air traffic?
- 4) Can ground access be provided to meet the forecast growth of air traffic?

### DATE AND PLACE OF ORGANIZATIONAL HEARING

Wednesday, 20th February, 1974 8:30 p.m.

Howard Johnson Hotel, Dixon Road & 27 Highway

### DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 18th March, 1974 6:00 p.m.

Howard Johnson Hotel, Dixon Road & 27 Highway

2. In relation to the following three questions of fact, is there any new evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:

- 1) Is this site not suitable because of the number of people that will be affected by noise disturbance from aircraft?
- 2) Is this site not suitable because of regional economic effect?
- 3) Is this site not suitable because of total environmental effect?

## DATE AND PLACE OF ORGANIZATIONAL HEARING

Thursday, 21st February, 1974 8:30 p.m.

Pickering High School, Church Street North, Pickering, Ontario

## DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 8th April, 1974 6:00 p.m.

Pickering High School, Church Street North, Pickering, Ontario

3. The Government of Canada has made forecasts as to the traffic volume of passenger, air cargo and aircraft movements to the year 2000. The questions for consideration are:

- A.
  - 1) Is there any new evidence as to what is the expected maximum passenger traffic volume in the domestic, trans-border and international air traffic markets for the year 1980?
  - 2) For the year 1990?
  - 3) For the year 2000?
- B. In relation to the following questions, is there any new evidence to prove that the site near Pickering, Ontario, is not suitable for the new Interantional Airport for the central Onatrio market, that is to say:
  - 1) Is this site not suitable because of passenger inconvenience?
  - 2) Is this site not suitable because of the on-site and off-site facilities that will be required to be built, such as roads, railways, guideways, helicopter facilities, etc?

## DATE AND PLACE OF ORGANIZATIONAL HEARING

Friday, 22nd February, 1974 2:30 p.m. Council Cahmber, Old City Hall, Queen Street West, Toronto, Ontario

## DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 22nd April, 1974 6:00 p.m. Council Chamber, Old City Hall, Queen Street West, Toronto, Ontario

4. In relation to the decisions of the Government of Canada that there is a need for a new International Airport for the central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario, new evidence, if available, will be received in respect to the following question:

- 1) Is there any new evidence of any relevant factor that has

not been considered by the Government of Canada, such, for example, as established facts on technology or travel habits, that may appear to affect any decision of the Government of Canada taken to date?

#### DATE AND PLACE OF ORGANIZATIONAL HEARING

Monday, 29th April, 1974 9:30a.m. 155 University Avenue, Toronto, Ontario

#### DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 6th May, 1974 9:30 a.m. to 1:00 p.m.

155 University Avenue, Toronto, Ontario

### PHASE II

1. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date, that there is a need for a new International Airport for the central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario.

To receive any evidence in respect to the following questions:

- 1) Should the new International Airport be principally international in character or should it serve some other function?
- 2) What airline traffic sectors or parts thereof should be allocated to the new International Airport in the major first phase in order to relieve the disturbance caused by flight operations at Malton?
- 3) To what extent should domestic and United States traffic be served at the new International Airport in addition to the airport having an international role?
- 4) Should the opening date of the major first phase be 1980 or later?

#### DATE AND PLACE OF ORGANIZATIONAL HEARING

Monday, 13th May, 1974 9:30 a.m. 155 University Avenue, Toronto, Ontario



## DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 20th May, 1974 9:30 a.m. to 1:00 p.m. 155 University Avenue, Toronto, Ontario

2. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date, that there is a need for a new International Airport for the Central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario.

To receive any evidence in respect to the following questions:

- 1) What should be the nature of the ground access to the new International Airport?
- 2) What should be the nature of the inter-airport transportation between Toronto International Airport, Malton, and the new International Airport?
- 3) From the point of view of passenger convenience, should a downtown terminal or terminals be established in respect of Toronto International Airport, Malton, or the new International Airport?

## DATE AND PLACE OF ORGANIZATIONAL HEARING

9:30 am.m Monday, 13th May, 1974 155 University Avenue, Toronto, Ontario

## DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 3rd June, 1974 9:30 a.m. to 1:00 p.m. 155 University Avenue, Toronto, Ontario

NOTE: Pursuant to the Practice and Procedure of the Commission all persons who wish to give evidence at any Public Hearing must file a written evidence statement prior to any Hearing.

## AIRPORT INQUIRY COMMISSION INDEX TO PRACTICE AND PROCEDURES

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## AIRPORT INQUIRY COMMISSION

### General Information

The Airport Inquiry Commission, authorized by Order in Council, P.C. 1973-3026 dated 5 October, 1973, opened its offices at Suite 5401, 54th Floor of the Toronto Dominion Bank Tower, Toronto-Dominion Centre, in the City of Toronto on the 3rd day of December, 1973.

The Commission has established a Practice and Procedure for the orderly conduct of the Inquiry. The Practice and Procedure has also been framed with the view that all interested persons are entitled to know the nature of the evidence that will be submitted to the Commission at each Public Hearing and to provide all interested persons with an opportunity to submit all relevant evidence to the Commission.

The following is a short summary of the manner in which the Inquiry will be conducted. For detailed particulars, it will be necessary to consult the Practice and Procedure of the Commission.

After the opening of the Commission offices, the Government of Canada shall file a summary of the relevant factors, with supporting documents, which the Government considered in reaching its decision that the transportation needs of the central Ontario market required that there be established another International Airport, in addition to the Toronto International Airport, Malton, and that the location of the new International Airport be near Pickering, Ontario.

The said Government summary will also contain an outline of any *new evidence* and documents, if any, in response to the various questions into which the Commission is to inquire such as *new evidence* as to the need of a new International Airport, *new evidence* as to the location of a new International Airport and as to whether there is any *new evidence* of any relevant factor that has not been considered by the Government of Canada to date that may appear to affect any decision of the Government of Canada taken to date such as established facts on technology or travel habits.

The said summary of the Government shall also respond to the various questions, set out in the Order in Council, on which the Commission is to receive and report and, if deemed advisable, to make recommendations *on evidence* in relation to the nature of the

new International Airport, the airline traffic sectors which should be allocated to the new International Airport, whether the new Airport is to have another role in addition to an international character, the manner in which the new Airport should be opened, the means of ground access to the new International Airport and whether a downtown terminal or terminals should be established, having regard for passenger convenience, to service Toronto International Airport, or the new International Airport.

Following the filing of the said Government summary all interested persons, including the Government of Canada, who wish to appear before the Commission at Public Hearings and adduce *new evidence* in respect to the matters mentioned in *Paragraph 1* and *any evidence* in respect to the matters mentioned in *Paragraph 2* of the said Order in Council will be required to file at the Commission's offices a full written statement of the evidence which they propose to adduce before the Commission. Personnel will be available at the Commission's offices to assist members of the public who wish assistance in the preparation of the written statement of their proposed evidence.

The 30th January, 1973 was the date that Notice of Confirmation of Intention of the Government of Canada to expropriate the lands for the Pickering Airport was given under The Expropriation Act, Revised Statutes of Canada 1970, Chapter 16 (1st Supplement). Accordingly the words "new evidence" used in the said Order in Council will therefore be interpreted as meaning any evidence of a relevant factor, the evidence of which has arisen since the 30th January, 1973.

"Arise" in this context means something that was not in the mind of the Canadian Government when it took, on 30 January, 1973, the policy decisions referred to in Order in Council, P.C. 1973-3026.

Each Public Hearing by the Commission will deal with a specific topic or a group of related topics, as may be established by the Commission from time to time. The public will be notified well in advance of all Hearings, by means of public notices published in newspapers serving the central Ontario market.

Only persons who have filed a full written statement of the evidence which they propose to adduce before the Commission, within the time limit prescribed by the Commission, will be entitled

to adduce evidence before the Commission on a Public Hearing of the Commission.

There will be Commission Counsel to assist the Commissioners, to help in the orderly conduct of the Inquiry and to ensure that all relevant factors are submitted to the Commission.

All requests for information, and all communications with the Airport Inquiry Commission and any Commissioner shall be directed to the Registrar-Administrator, Airport Inquiry Commission at its offices.



## AIRPORT INQUIRY COMMISSION

### Practice and Procedure

#### I NEW EVIDENCE

For the purposes of the Practice and Procedure of the Airport Inquiry Commission the words “*new evidence*” mean as follows:

(a) The 30th January, 1973 was the date that Notice of Confirmation of Intention of the Government of Canada to expropriate the lands for the Pickering Airport was given under The Expropriation Act, Revised Statutes of Canada 1970, Chapter 16 (1st Supplement). Accordingly the words “*new evidence*” used in the said Order in Council will therefore be interpreted as meaning any evidence of a relevant factor, the evidence of which has arisen since the 30th January, 1973.

(b) “*Arisen*” in this context means something that was not in the mind of the Canadian Government when it took, on 30th January, 1973, the policy decisions referred to in Order in Council, P.C. 1973-3026.

#### II. FILING OF GOVERNMENT SUMMARY

The Government of Canada will cause to be deposited at the Commission’s offices, at such time as may be established by the Commission, a written summary, with supporting documents, as follows:

1. In respect to those matters mentioned in Paragraph 1 of Order in Council, P.C. 1973-3026.

(a) The relevant factors considered by the Government in reaching its decision that the air transportation needs of the central Ontario market require that there be established another International Airport in addition to the Toronto International Airport and the choice of site near Pickering, Ontario, as the location for such new International Airport;

(b) Any *new evidence* in respect to the need for a new International Airport, having regard to the decisions of the Government of Canada that there is a need for a new International Airport to serve the central Ontario market, in relation to the following:

- (i) the expected maximum passenger traffic volume in the domestic, trans-border and international air traffic markets for the year 1980;
  - (ii) the best estimate of rates of growth of passenger traffic volume in the domestic, trans-border and international air traffic markets beyond 1980;
  - (iii) the expansion or reconfiguration of the Toronto International Airport, Malton, within present boundaries, to meet all reasonable needs for the periods from the present to 1980, from the present to 1990 and from the present to 2000, having regard to runway capacity, ground access, terminal capacity and the number of people affected by disturbance from flight operations;
  - (c) Any *new evidence* to prove that the site of a new International Airport near Pickering, Ontario, is not suitable, having regard to the decisions of the Government of Canada that the new International Airport should be located on a site near Pickering, Ontario, having regard to:
    - (i) disturbance from flight operations;
    - (ii) passenger convenience;
    - (iii) regional economic effect;
    - (iv) total environmental effect, positive and negative; and
    - (v) facilities required, including related infrastructures such as roads, railways and helicopter facilities;
  - (d) Any *new evidence* of any relevant factor not previously considered by the Government which may appear to affect any decision of the Government taken to date.
2. In respect to those matters mentioned in Paragraph 2 of Order in Council, P.C. 1973-3026.
- (a) Any *evidence* as to whether the new International Airport should be principally international in character or serve some other function;
  - (b) Any *evidence* as to the airline sectors which should be allocated to the new International Airport in the major first phase of its operation in order to relieve the disturbance caused by flight operations at the International Airport at Malton;
  - (c) Any *evidence* as to whether domestic and United States air

traffic should be served at the new International Airport in addition to the airport having an international role;

(d) *Any evidence* as to whether there should be an opening date of the major first phase of the new Airport in 1980 or later;

(e) *Any evidence* as to whether there should be a partial or limited opening of the operations of the new International Airport prior to 1980;

(f) *Any evidence* as to the nature of ground access to the new International Airport;

(g) *Any evidence* as to the nature of inter-air transportation between Toronto International Airport and the new International Airport;

(h) *Any evidence* as to the need for the establishment of a downtown Toronto terminal or terminals in respect to Toronto International Airport or the new International Airport having regard for passenger convenience.

### III INTERESTED PERSONS AND WITNESSES

1. Any private member of the public or representative of an interested agency, group or corporation and any representative of the federal or any provincial, regional or municipal government who wishes to appear and adduce evidence before the Commission on a particular topic, for which the Commission has published notice requesting evidence statements, shall file at the Commission's offices, on or before the date specified in such notice as the last day for filing of evidence statements, an evidence statement which shall contain the following:

(a) His or her name, address and telephone number;

(b) Whether he or she has a general interest or a special interest in the inquiry and the nature of his or her general or special interest;

(c) Whether his or her evidence will be of a factual nature or of an opinion nature. If his or her evidence will be of an opinion nature, he or she shall specify the special skill which he or she possesses by reason of experience or study which has rendered him or her peculiarly skilled on the topic on which he or she intends to give evidence;

- (d) The particular topic to which his or her evidence will be directed;
  - (e) If the witness's evidence will be directed to any of the matters mentioned in Paragraphs II 1 (a), (b), (c) and (d) hereof, he or she shall specify concisely the basis of his or her claim that his or her evidence is *new evidence*;
  - (f) A full statement of his or her proposed evidence;
  - (g) If he or she intends to introduce any exhibit before the Commission to supplement or explain his or her statement, such as supporting documents, plans, reports, technical memoranda, etc., he or she shall attach to the statement a separate page listing such exhibits;
  - (h) Whether he or she intends to rely in whole or in part on the testimony of an expert, and if so, he or she shall attach to the statement a separate page or pages which shall set out the name, address and phone number of such expert, the qualifications of such expert, the proposed evidence of such expert and a written acknowledgement of such expert that he or she is willing to attend before the Commission and to submit to examination and cross-examination, if required to do so;
  - (i) An acknowledgement that he or she will attend before the Commission and submit to examination and cross-examination, if required to do so;
  - (j) His or her signature.
2. If it is stated, in an evidence statement, that the person filing such evidence statement intends to introduce any exhibits before the Commission, he or she must file a copy of the proposed exhibit at the time of filing his or her evidence statement. If he or she fails to do so, the Commission will not receive such exhibits into evidence.
  3. No oral evidence will be received by the Commission from an individual, or representative of a group, corporation, federal, provincial, regional or municipal government who has not filed an evidence statement.
  4. Any evidence statement which is not in compliance with these provisions will not be accepted for filing but shall be returned for revision, amendment or correction, as the case may be.
  5. Any interested person filing an evidence statement may be

required to appear before the Commission and to give oral evidence thereon and be subject to cross-examination. On any Public Hearing by the Commission, such interested person in giving oral evidence shall be limited to such matters as are set out in his or her evidence statement, except that a witness will be allowed to give any additional evidence as may be necessary to explain or demonstrate the facts set out in his or her evidence statement.

6. The Commission will only receive opinion evidence of a witness where it is indicated that the witness possesses a special skill by reason of experience or study in respect to the particular subject on which he or she intends to express an opinion.

7. If it appears to a Commission Counsel, after reviewing evidence statements filed in respect to any particular topic to be considered by the Commission, that there is evidence in addition to the evidence set out in the evidence statements, filed, which should be adduced before the Commission in the public interest, Commission Counsel shall be entitled to call witnesses in respect to such evidence on the Public Hearing into such topic.

8. Commission Counsel shall endeavour to file an evidence statement in respect to such witness, together with any exhibits to be introduced before the Commission through such witness, prior to the date fixed for the Public Hearing at which such witness will testify, provided that failure to do so shall not preclude Commission Counsel from calling such witness and introducing any such exhibits, notwithstanding anything herein to the contrary.

9. The Commission in its discretion may allow reply evidence to rebut evidence given by another witness or witnesses, and in that event, the evidence of such rebuttal witness or witnesses shall be limited exclusively to rebuttal and the provisions of Paragraph III 3 hereof, shall not apply to any such witness or witnesses.

#### **IV INSPECTION AND RECEIPT OF INFORMATION**

Any member of the Public, during public business hours of the Commission's offices, may inspect and receive information from any evidence statement filed and any exhibits filed therewith and receive copies thereof, where feasible, provided such person pays the prescribed costs of such copying. (A copy of this Practice and Procedure and the Order in Council setting up the Airport Inquiry



Commission however will be supplied to any member of the Public free of charge).

## **V COMMISSION COUNSEL**

1. There will be Commission Counsel to assist the Commissioners, to help in the orderly conduct of the inquiry and to ensure that all relevant factors are submitted to the Commission.

2. Commission Counsel will be present at all Organizational Hearings and Public Hearings and shall call such witnesses to give oral evidence as he in his discretion deems advisable. When for example it appears to Commission Counsel that two or more persons have similar evidence on the matter under consideration at any Public Hearing, Commission Counsel, in his discretion, may select one or more persons to give such oral evidence for the benefit of all persons having similar evidence. Commission Counsel may at any Public Hearing file as part of the record of such Hearing any evidence statement without requiring the person who filed such evidence statement to give oral evidence before the Hearing.

3 At any Public Hearing any member of the public may request Commission Counsel, in writing, to ask a particular question of a witness, and Commission Counsel may, in his discretion, ask such question.

## **VI OTHER COUNSEL**

Other counsel may appear before the Commission in such capacity as may be determined by the Commission at any Organizational Hearing.

## **VII COMMISSION STAFF**

1. Any member of the public may inquire at the Commission offices of any matter concerning the subject matter of this Inquiry and the Commission staff, prior to any Organizational Hearing or any Public Hearing or during any Public Hearing, will attempt to satisfy any inquiry so made.

2. The Commission staff shall assist any person, who wishes assistance, in the preparation of an evidence statement.

## **VIII ORGANIZATIONAL HEARINGS**

1. There may be one or more Organizational Hearings prior to

any Public Hearing. At the first of such Organizational Hearings, the public will be asked to file, in writing, suggestions for any additional topic, within the terms of reference prescribed in Order in Council P.C. 1973-3026, which he or she wishes the Commission to consider, and the Commission, if it deems appropriate and advisable, may add such topic or topics to the matters to be considered by it and request that evidence be adduced in respect thereof.

2. At the first Organizational Hearing, any private member of the public or representative of any interested agency, group, corporation, federal government, provincial government, regional or municipal government who wishes to have counsel represent their position in any or all of the Public Hearings of the Commission will be invited to request that they be permitted to have counsel participate on their behalf on any or all Public Hearings of the Commission and to have the role of such counsel in such Hearings determined. Any member of the public or representative of any interested agency, group, corporation and any representative of the federal or any provincial, regional or municipal government who intends to make such request at such Organizational Hearing shall file at the Commission's offices at least ten (10) days prior to the date fixed for such Organizational Hearing, a statement which shall set out the role that it is proposed that such counsel will take at any Public Hearing and the reason for the need to be represented by counsel.

3. Any private member of the public or representative of any interested agency, group or corporation or any representative of the federal or any provincial, regional or municipal government who fails to file such statement, or having filed such statement fails to attend or to be represented at such Organizational Hearing in respect to such request, shall be deemed to have waived any right to have counsel attend at any Public Hearing other than in a capacity as an observer.

## **IX THE SUMMONING OF WITNESSES AND THE PRODUCTION OF DOCUMENTS**

The Chairman of the Commission on application may authorize the issue of a subpoena to compel the attendance of a witness before any Public Hearing to give evidence and to produce such

documents and things as may be deemed requisite. Any person may request the Chairman to issue such subpoena by filing written application at the Commission's offices at least fifteen (15) days prior to the date fixed for the Public Hearing at which it is intended to summon such witness. The application shall set out the name and address of the applicant and of the proposed witness, the nature of the evidence, document or thing believed to be possessed by such witness and the reason why the applicant deems the testimony, document or thing in the possession of such witness to be important. The applicant shall be advised of the Chairman's decision, as to whether a subpoena should be issued or not, at least ten (10) days prior to the date fixed for the Public Hearing at which such witness is to be called. If it is the decision of the Chairman to grant such application, it is the responsibility of the applicant to arrange for service of such subpoena and to pay to the witness to be subpoenaed such witness fees and conduct money as are prescribed in the Rules of the Federal Court of Canada.

## **X PUBLIC HEARINGS**

1. The Chairman of the Commission shall from time to time fix a time and place for each Public Hearing and each Organizational Hearing.
2. There shall be more than one Public Hearing and there may be more than one Organizational Hearing.
3. Each Public Hearing shall be confined to receiving evidence on the particular topic or topics fixed for such Hearing, as previously published.
4. The Practice and Procedure to be followed at each Public Hearing and Organizational Hearing shall be in the discretion of the Chairman.

## **XI NOTICES**

1. All notices of Organizational Hearings and Public Hearings shall be published in such newspapers and periodicals serving the Central Ontario market as the Commission in its discretion may determine.
2. The Registrar-Administrator to the Commission shall cause to be published, as aforesaid, the following:
  - (a) Notice of each topic or topics for which the Commission

requests evidence and the last day for the filing of evidence statements in respect to such topic;

(b) Notice of any Organizational Hearing within a reasonable time prior to the date fixed for such Organizational Hearing;

(c) Notice of each Public Hearing at least twenty (20) days prior to the date fixed for any such Hearing.

3. No notice of any adjourned Hearing shall be published unless such adjourned Hearing is adjourned to a date to be fixed.

4. For the purposes of computing any time limit, hereunder, a notice shall be deemed to have been first published in a newspaper or periodical serving the central Ontario market from the date it is first published in a newspaper in the City of Toronto.

## **XII COMMUNICATION WITH COMMISSIONERS**

All communication with the Commission or the Commissioners shall be through and by the Registrar-Administrator.

## **XIII TOPICS**

1. The Commission will conduct its inquiry, within the terms of reference as prescribed by Order in Council, P.C. 1973-3026, on the basis of the following general topics:

facilities

technology

travel habits

need

location

The Commission may, from time to time, enlarge, consolidate, delete and modify any of the said general topics.

2. The consideration of each general topic will have the following aspects:

(a) The Commission will only receive *new evidence* in respect to those matters mentioned in Paragraph 1 of the said Order in Council;

(b) The Commission will receive *any and all evidence* in relation to those matters mentioned in Paragraph 2 of the said Order in Council.

The said Order in Council, Order in Council P.C. 1973-3026, is hereunto annexed as Schedule "A".

**XIV PAYMENT OF COSTS OF REPORTS, RESEARCH,  
WITNESS FEES AND WITNESS'S EXPENSES**

The Commission shall only be responsible for payment of costs of research, preparation of reports and witness fees as may be authorized by the Chairman of the Commission on request of Commission Counsel as being necessary to enable Commission Counsel to adduce evidence before the Commission of all relevant factors as required under Paragraph III 7 hereof.

**XV WRITTEN AND ORAL SUBMISSIONS**

On the conclusion of Public Hearings of a general topic, the Commission may, if it deems advisable, request oral or written submissions.

Dated this 3rd day of December, 1973.



**SCHEDULE "A"**



P.C. 1973-3026

5 October, 1973

**PRIVY COUNCIL • CONSEIL PRIVÉ**

WHEREAS the Government of Canada has decided that Toronto International Airport, Malton, will not be expanded beyond its present boundaries in order not to further increase the degree of disturbance from flight operations to the people now living in communities surrounding Toronto International Airport, Malton;

AND WHEREAS the Government of Canada has decided that the air transportation needs of the central Ontario market require that there be established another international airport in addition to Toronto International Airport, Malton;

AND WHEREAS the Government of Canada has chosen a site near Pickering, Ontario to be the location for the new International Airport;

AND WHEREAS it is desired to provide a means of receiving new evidence as to the need for and location of such an airport and new evidence of any relevant factor that has not been considered by the Government of Canada, if available and forthcoming;

AND WHEREAS there are other matters necessarily inter-related to and affected by such decisions in respect of which it is desired that there be an inquiry.

THEREFORE, THE COMMITTEE OF THE PRIVY COUNCIL advise that, pursuant to Part I of the Inquiries Act, the Honourable Mr. Justice Hugh F. Gibson, a Judge of the Federal Court of Canada, of the City of Ottawa in the Province of Ontario, Murray V. Jones, Esquire, of the City of Toronto in the Province of Ontario, and Dr. Howard Petch, Esquire, of the City of Kitchener in the Province of Ontario, be appointed Commissioners under Part I of the Inquiries Act (to be known as the "Airport Inquiry Commission") to inquire into and report upon the air transportation needs of the central Ontario market as follows:

1. In relation to the decisions that there is a need for a new International Airport for the central Ontario market and that the new International Airport be located on the site near

Pickering, Ontario, to receive and record new evidence, if available, and if available and adduced, to report on such new evidence in response to the following questions:

(a) respecting need,

(i) is there any new evidence as to what is the expected maximum passenger traffic volume in the domestic, trans-border and international air traffic markets for the year 1980 and what are the best estimates of rates of growth beyond 1980, and

(ii) is there any new evidence that Toronto International Airport, Malton, can be expanded or reconfigured, within present boundaries, to meet all reasonable needs, having regard to runway capacity, ground access, terminal capacity and the number of people affected by disturbance from flight operations for the period up to 1980, 1990 and 2000;

(b) respecting location, is there any new evidence to prove that the site near Pickering, Ontario is not suitable for the new International Airport for the central Ontario market having regard to

(i) disturbance from flight operations,

(ii) passenger convenience,

(iii) regional economic effect,

(iv) total environmental effect, positive and negative, and

(v) facilities required, including related infrastructures such as roads, railways, guideways and helicopter facilities, and

(c) generally, is there any new evidence of any relevant factor that has not been considered by the Government of Canada, such, for example, as established facts on technology or travel habits, that may appear to affect any decision of the Government of Canada taken to date?

2. To receive and report on any evidence adduced and, if deemed advisable, to make recommendations in so far as they are within federal legislative jurisdiction in response to the following questions:

(a) should the new International Airport be principally international in character or should it serve some other function,

- (b) what airline traffic sectors or parts thereof should be allocated to the new International Airport in the major first phase in order to relieve the disturbance caused by flight operations at Malton,
  - (c) to what extent should domestic and United States traffic be served at the new International Airport in addition to the airport having an international role,
  - (d) should the opening date of the major first phase be 1980 or later,
  - (e) should there be a partial or limited opening of the new International Airport prior to 1980,
  - (f) what should be the nature of
    - (i) the ground access to the New International Airport, and
    - (ii) the inter-airport transportation between Toronto International Airport, Malton, and the new International Airport, and
  - (g) from the point of view of passenger convenience, should a downtown terminal or terminals be established in respect of Toronto International Airport, Malton or the new International Airport?
- 3. For the purpose of reporting under subparagraphs 1(a), (b) and (c), to receive new evidence, if any is forthcoming and adduced in accordance with the practices and procedures of the Commission, from any private member of the public, any interested agency, any group or corporation and any representative of the federal or any provincial, regional or municipal government who desires to give evidence.
  - 4. For the purpose of reporting and if deemed advisable making recommendations under paragraph 2, to receive evidence, if forthcoming and adduced in accordance with the practices and procedures of the Commission, from any private member of the public, any interested agency, any group or corporation and any representative of the federal or any provincial, regional or municipal government who desires to give evidence.

THE COMMITTEE further advise that

- A. the Honourable Mr. Justice Hugh F. Gibson be appointed Chairman of the Airport Inquiry Commission;

- B. the Chairman be authorized to prescribe and adopt such practices and procedures for all purposes of the Commission as he may from time to time deem expedient for the proper conduct of the inquiry and to vary those practices and procedures from time to time;
- C. the Commissioners be authorized to sit at such times and at such places and to view such other locations as the Chairman may from time to time decide;
- D. the Commissioners be authorized to engage the services of such accountants, engineers, technical advisers or other experts, clerks, reporters and assistants as they deem necessary or advisable, and also the services of counsel to aid and assist the Commissioners in the inquiry, at such rates of remuneration and reimbursement as may be approved by the Treasury Board;
- E. the Commissioners be authorized to rent such space for offices and hearing rooms as they deem necessary or advisable at such rental rates as may be approved by the Treasury Board; and
- F. the Commissioners be authorized to submit interim reports to the Governor in Council from time to time and be requested to submit a final report to the Governor in Council with all reasonable despatch, if possible within twelve months.

THE COMMITTEE further advise that, pursuant to section 37 of the Judges Act, the Honourable Mr. Justice Hugh F. Gibson be authorized to act as Commissioner for the purposes of the said inquiry.

**CERTIFIED TO BE A TRUE COPY – COPIE CERTIFIÉE CONFORME**

**"R. G. ROBERTSON**

**CLERK OF THE PRIVY COUNCIL LE GREFFIER DU CONSEIL PRIVÉ**

*This is Exhibit "L" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*

## THE EXECUTIVE COUNCIL OF ONTARIO

Hon. W.G. Davis, Premier

Hon. G. Kerr, Q.C., Provincial Secretary for Justice

Hon. R.S. Welch, Q.C., Provincial Secretary for Social Development

Hon. A.B.R. Lawrence, Q.C., Provincial Secretary for Resources Development

Hon. J. White, Treasurer of Ontario and Minister of Economics and Intergovernmental Affairs

Hon. E. Winkler, Chairman, Management Board of Cabinet

Hon. W.A. Stewart, Minister of Agriculture and Food

Hon. D.A. Bales, Q.C., Attorney General

Hon. J. McNie, Q.C., Minister of Colleges and Universities

Hon. R. Brunelle, Minister of Community and Social Services

Hon. J.T. Clement, Minister of Consumer and Commercial Relations

Hon. C.J.S. Apps, Minister of Correctional Services

Hon. T.L. Wells, Minister of Education

Hon. J.A.C. Auld, Minister of The Environment

Hon. J.W. Snow, Minister of Government Services

Hon. R.T. Potter, M.D., Minister of Health

Hon. C. Bennett, Minister of Industry and Tourism

Hon. F. Guindon, Minister of Labour

Hon. L.E. Bernier, Minister of Natural Resources

Hon. A. Grossman, Minister of Revenue

Hon. J. Yaremko, Q.C., Solicitor General

Hon. G.R. Carton, Q.C., Minister of Transportation and Communications



*Airport Inquiry Commission Report*

Hon. Margaret Birch, Minister Without Portfolio

C.E. Brannan, Secretary of the Cabinet

## **DEPUTY MINISTERS OF ONTARIO**

Mr. T.R. Hilliard, Deputy Minister of Agriculture and Food

Mr. F.W. Callaghan, Q.C., Deputy Minister of the Attorney General

Dr. J.G. Parr, Deputy Minister of Colleges and Universities

Mr. T.M. Eberlee, Deputy Minister of Community and Social Services

Mr. J.K. Young, Deputy Minister of Consumer and Commercial Relations

Mr. D. Sinclair, Deputy Minister of Correctional Services

Dr. E.E. Stewart, Deputy Minister of Education

Mr. Everett Biggs, Deputy Minister of The Environment

Mr. J.C. Thatcher, Deputy Minister of Government Services

Mr. S.W. Martin, Deputy Minister of Health

Mr. Fred J. Pillgrem, Deputy Minister of Industry and Tourism

Mr. R.D. Johnston, Deputy Minister of Labour

Mr. Walter O. Macnee, Deputy Minister of Natural Resources

Mr. D.A. Crosbie, Deputy Minister of Revenue

Mr. R.M. Warren, Deputy Minister of the Solicitor General

Mr. A.T.C. MacNab, Deputy Minister of Transportation and Communications

Mr. H.I. Macdonald, Deputy Minister of Treasury Economics and Intergovernmental Affairs

*Airport Inquiry Commission Report*

*This is Exhibit "M" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*



**AIRPORT INQUIRY COMMISSION**  
**COMMISSION D'ENQUÊTE SUR L'AÉROPORT**

---

P.O. Box 170, Suite 5401, Toronto Dominion Bank Tower,  
Toronto-Dominion Centre, Toronto, Ontario M5K 1H6  
Telephone (416)369-3881

**Chairman**

*The Honorable Mr. Justice Hugh F. Gibson*

**Members:**

*Murray V. Jones, Esq.*

*Dr. Howard Pitch*

**General Counsel:**

*Ralph S. McCreath, Q.C.*

**Registrar-Administrator:**

*Norman Delorme, Esq.*

February 5, 1974.

Dear Sir:

I enclose a copy of the Notice of the first Organizational and Public Hearings of this Commission at Malton, Pickering and Toronto, set down in pursuance of Parts VIII and X of the Practice and Procedure.

This Notice has been published in the Toronto newspapers and in all newspapers serving the Central Ontario market in accordance with Part XI of the Practice and Procedure.

Yours very truly,

"J.W.N. Delorme"

Registrar-Administrator

**ADDRESS ALL INQUIRIES AND CORRESPONDENCE TO  
THE REGISTRAR-ADMINISTRATOR**

*This is Exhibit "N" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*



**AIRPORT INQUIRY COMMISSION  
COMMISSION D'ENQUÊTE SUR L'AÉROPORT**

**SCHEDULE OF HEARINGS**

**COMMISSION'S OFFICES**

P.O. Box 170, Suite 5401, Toronto Dominion Bank Tower,  
Toronto-Dominion Centre

Toronto, Ontario

(416) 369-3881



CANADA

**AIRPORT INQUIRY COMMISSION  
COMMISSION D'ENQUÊTE SUR L'AÉROPORT**

**CHAIRMAN**

The Honourable Mr. Justice Hugh F. Gibson

**MEMBERS**

Dr. Howard E. Petch

Murray V. Jones, Esq.

**GENERAL COUNSEL**

Ralph S. McCreath, Esq., Q.C.

**ASSOCIATE COUNSEL**

Robert W. Macaulay, Esq., Q.C.

Barry A. Monaghan, Esq.

John D. Richard, Esq.

**INTERNAL COUNSEL**

Arnold S. Weinrib, Esq.

Wayne C. Gay, Esq.

**REGISTRAR-ADMINISTRATOR**

J.W. Norman Delorme, Esq.

**COMMISSION'S OFFICES**

P.O. Box 170, Suite 5401, Toronto Dominion Bank Tower,  
Toronto-Dominion Centre

Toronto, Ontario

(416) 369-3881



## **PHASE I**

1. The Government of Canada has made forecasts as to the volume of passenger, air cargo, and aircraft movements in the central Ontario market to the year 2000. On the basis of these forecasts, (without receiving any new evidence at this time as to the validity of these forecasts as such evidence will be received at subsequent hearings), in relation to the following questions of fact, is there any new evidence that Toronto International Airport, Malton, can be expanded or reconfigured within present boundaries to meet all reasonable needs to the year 1980, to the year 1990, and to the year 2000, that is to say:

- 1) Can the forecast growth of air traffic be met without increasing the number of people affected by noise disturbance from aircraft?
- 2) Can the runway capacity be extended to meet the forecast growth of air traffic?
- 3) Can the terminal capacity be increased to meet the forecast growth of air traffic?
- 4) Can ground access be provided to meet the forecast growth of air traffic?

### **DATE AND PLACE OF ORGANIZATIONAL HEARING**

Wednesday, 20th February, 1974 8:30 p.m.

Howard Johnson Hotel, Dixon Road & 27 Highway

### **DATE AND PLACE OF PUBLIC HEARINGS**

Commencing Monday, 18th March, 1974 6:00 p.m.

Howard Johnson Hotel, Dixon Road & 27 Highway

2. In relation to the following three questions of fact, is there any new evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:

- 1) Is this site not suitable because of the number of people that will be affected by noise disturbance from aircraft?
- 2) Is this site not suitable because of regional economic effect?
- 3) Is this site not suitable because of total environmental effect?

## DATE AND PLACE OF ORGANIZATIONAL HEARING

Thursday, 21st February, 1974 8:30 p.m.

Pickering High School, Church Street North, Pickering, Ontario

## DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 8th April, 1974 6:00 p.m.

Pickering High School, Church Street North, Pickering, Ontario

3. The Government of Canada has made forecasts as to the traffic volume of passenger, air cargo and aircraft movements to the year 2000. The questions for consideration are:

- A.
  - 1) Is there any new evidence as to what is the expected maximum passenger traffic volume in the domestic, trans-border and international air traffic markets for the year 1980?
  - 2) For the year 1990?
  - 3) For the year 2000?
- B. In relation to the following questions, is there any new evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:
  - 1) Is this site not suitable because of passenger inconvenience?
  - 2) Is this site not suitable because of the on-site and off-site facilities that will be required to be built, such as roads, railways, guideways, helicopter facilities, etc?

## DATE AND PLACE OF ORGANIZATIONAL HEARING

Friday, 22nd February, 1974 2:30 p.m. Council Chamber, Old City Hall, Queen Street West, Toronto, Ontario

## DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 22nd April, 1974 6:00 p.m. Council Chamber, Old City Hall, Queen Street West, Toronto, Ontario

4. In relation to the decisions of the Government of Canada that there is a need for a new International Airport for the central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario, new evidence, if available, will be received in respect to the following question:

- 1) Is there any new evidence of any relevant factor that has

not been considered by the Government of Canada, such, for example, as established facts on technology or travel habits, that may appear to affect any decision of the Government of Canada taken to date?

#### DATE AND PLACE OF ORGANIZATIONAL HEARING

Monday, 29th April, 1974 9:30 a.m. 155 University Avenue, Toronto, Ontario

#### DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 6th May, 1974 9:30 a.m. to 1:00 p.m.  
155 University Avenue, Toronto, Ontario

### PHASE II

1. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date, that there is a need for a new International Airport for the central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario.

To receive any evidence in respect to the following questions:

- 1) Should the new International Airport be principally international in character or should it serve some other function?
- 2) What airline traffic sectors or parts thereof should be allocated to the new International Airport in the major first phase in order to relieve the disturbance caused by flight operations at Malton?
- 3) To what extent should domestic and United States traffic be served at the new International Airport in addition to the airport having an international role?
- 4) Should the opening date of the major first phase be 1980 or later?

#### DATE AND PLACE OF ORGANIZATIONAL HEARING

Monday, 13th May, 1974 9:30 a.m. 155 University Avenue, Toronto, Ontario

## DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 20th May, 1974 9:30 a.m. to 1:00 p.m. 155 University Avenue, Toronto, Ontario

2. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date, that there is a need for a new International Airport for the Central Ontario market, and the new International Airport be located on the site near Pickering, Ontario.

To receive any evidence in respect to the following questions:

- 1) What should be the nature of the ground access to the new International Airport?
- 2) What should be the nature of the inter-airport transportation between Toronto International Airport, Malton, and the new International Airport?
- 3) From the point of view of passenger convenience, should a downtown terminal or terminals be established in respect of Toronto International Airport, Malton, or the new International Airport?

## DATE AND PLACE OF ORGANIZATIONAL HEARING

9:30 am.m Monday, 13th May, 1974 155 University Avenue, Toronto, Ontario

## DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 3rd June, 1974 9:30 a.m. to 1:00 p.m. 155 University Avenue, Toronto, Ontario

NOTE: Pursuant to the Practice and Procedure of the Commission all persons who wish to give evidence at any Public Hearing must file a written evidence statement prior to any Hearing.

*This is Exhibit "O" referred to in the affidavit of J.W. Norman Delorme sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*



## **AIRPORT INQUIRY COMMISSION COMMISSION D'ENQUÊTE SUR L'AÉROPORT**

### **Notice of Hearings**

THE AIRPORT INQUIRY COMMISSION will hold  
Organizational Hearings on:

**Wednesday, 20th February, 1974**

**Thursday, 21st February, 1974**

**Friday, 22nd February, 1974**

for the purpose of organizing Public Hearings to receive evidence in respect to the matters set out in Order in Council, P.C. 1973-3026, dated 5th October, 1973.

### **Hearings at Malton**

On Wednesday, 20th February, 1974 the first Organizational Hearing of the Commission will be held at: Howard Johnson Hotel, Dixon Road and 27 Highway, 8:30 p.m.

### **Hearings at Pickering**

On Thursday, 21st February, 1974, the second Organizational Hearing of the Commission will be held at:  
Pickering High School, Church St. North, Town of Pickering, 8:30 p.m.

### **Hearings at Toronto**

On Friday, 22nd February, 1974, the third Organizational Hearing of the Commission will be held at:  
Council Chamber, Old City Hall, Queen Street West, Toronto, 2:30 p.m.

### **Registrar-Administrator:**

J.W.N. Delorme, Esq.

All inquiries and communications with the Commission or Commissioners should be addressed to the Registrar-Administrator at the Commission's offices.



## *Airport Inquiry Commission Report*

### **Toronto Office**

P.O. Box 170, Suite 5401,  
Toronto Dominion Bank  
Tower,  
Toronto-Dominion  
Centre,  
Toronto, Ontario.  
M5K 1H6  
(416) 369-3881

### **Malton Office**

Howard Johnson Hotel  
Dixon Road and  
Highway 27.

### **Pickering Office**

Highway 7 & Brock Road  
Brougham, Ontario  
(416) 942-1551

*This is Exhibit "P" referred to in the affidavit of J.W. Norman Delorme, sworn before me, this 15 day of March, 1974. "B.R. Madigan". A Commissioner, etc.*

**Daily Newspapers**

Toronto Star

**Weekly Newspapers**

Ajax Guardian

Ajax News-Advertiser

Pickering's Bay News

Pickering Post

Whitby Free Press

Brampton Guardian

Etobicoke Guardian

Etobicoke Advertiser

Malton North Peel Reporter

Malton Pilot

Mississauga News

Mississauga Times

Mississauga Review

Malton Courier

Etobicoke Reporter



**AIRPORT INQUIRY COMMISSION  
COMMISSION D'ENQUÊTE SUR L'AÉROPORT**

**SCHEDULE OF HEARINGS**

**COMMISSION'S OFFICES**

Toronto

P.O Box 170, Suite 5401, Toronto Dominion Bank Tower,  
Toronto-Dominion Centre

(416) 369-3881

April 1, 1974



**AIRPORT INQUIRY COMMISSION  
COMMISSION D'ENQUÊTE SUR L'AÉROPORT**

**CHAIRMAN**

The Honourable Mr. Justice Hugh F. Gibson

**MEMBERS**

Dr. Howard E. Petch

Murray V. Jones, Esq.

**GENERAL COUNSEL**

Ralph S. McCreath, Esq., Q.C.

**ASSOCIATE COUNSEL**

Robert W. Macaulay, Esq., Q.C.

Barry A. Monaghan, Esq.

John D. Richard, Esq.

**INTERNAL COUNSEL**

Arnold S. Weinrib, Esq.

Wayne C. Gay, Esq.

**REGISTRAR-ADMINISTRATOR**

J.W. Norman Delorme, Esq.

**COMMISSION'S OFFICES**

**TORONTO**

P.O. Box 170, Suite 5401 Toronto Dominion Bank Tower,  
Toronto-Dominion Centre

(416) 369-3881

**PICKERING**

Highway 7 & Brock Road Brougham, Ontario

(416) 942-1551

## PHASE I

1. The Government of Canada has made forecasts as to the volume of passenger, air-cargo, and aircraft movements in the central Ontario market to the year 2000. On the basis of these forecasts, (without receiving any new evidence at this time as to the validity of these forecasts as such evidence will be received at subsequent hearings), in relation to the following questions of fact, is there any new evidence that Toronto International Airport, Malton, can be expanded or reconfigured within present boundaries to meet all reasonable needs to the year 1980, to the year 1990, and to the year 2000, that is to say:

- 1) Can the forecast growth of air traffic be met without increasing the number of people affected by noise disturbance from aircraft?
- 2) Can the runway capacity be extended to meet the forecast growth of air traffic?
- 3) Can the terminal capacity be increased to meet the forecast growth of air traffic?

### DATE AND PLACE OF ORGANIZATIONAL HEARING

Wednesday, 20th February, 1974 8:30 p.m. Howard Johnson Hotel, Dixon Road & 27 Highway

### DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 18th March, 1974 6:00 p.m. Howard Johnson Hotel, Dixon Road & 27 Highway

Evidence statements in respect to the above questions should be filed on or before Monday, 4th March, 1974, in accordance with the Commission's Practice and Procedure.

2. In relation to the following three questions of fact, is there any new evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:

- 1) Is this site not suitable because of the number of people that will be affected by noise disturbance from aircraft?
- 2) Is this site not suitable because of regional economic effect?
- 3) Is this site not suitable because of total environmental effect?



## DATE AND PLACE OF ORGANIZATIONAL HEARING

Thursday, 21st February, 1974 8:30 p.m. Pickering High School, Church Street North, Pickering, Ontario

## DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 8th April, 1974 6:00 p.m. Pickering High School, Church Street North, Pickering, Ontario evidence statements in respect to the above questions should be filed on or before Monday, 25th March, 1974, in accordance with the commission's practice and procedure.

3. The Government of Canada has made forecasts as to the traffic volume of passenger, air cargo and aircraft movements to the year 2000. The questions for consideration are:

- A. 1) Is there any new evidence as to what is the expected maximum passenger traffic volume in the domestic, trans-border and interantional air traffic markets for the year 1980?
- 2) For the year 1990?
- 3) For the year 2000?
- B. In relation to the following questions, is there any new evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:
  - 1) Is this site not suitable because of passenger inconvenience?
  - 2) Is this site not suitable because of the on-site and off-site facilities that will be required to be built, such as roads, railways, guideways, helicopter facilities, etc?

## DATE AND PLACE OF ORGANIZATIONAL HEARING

Friday, 22nd February, 1974 2:30 p.m. Council Chamber, Old City Hall, Queen Street West, Toronto, Ontario

## DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 22nd April, 1974 2:00 p.m. 155 University Ave., Toronto, Ontario

Evidence statements in respect to the above questions should be filed on or before Monday, 8th April, 1974, in accordance with the Commission's Practice and Procedure.

4. In relation to the decisions of the Government of Canada that there is a need for a new International Airport for the central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario, new evidence, if available, will be received in respect to the following questions:

- 1) Is there any new evidence of any relevant factor that has not been considered by the Government of Canada, such, for example, as established facts on technology or travel habits, that may appear to affect any decision of the Government of Canada taken to date?

#### DATE AND PLACE OF ORGANIZATIONAL HEARING

Monday, 29th April, 1974 9:30 a.m. 155 University Avenue, Toronto, Ontario

#### DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 6th May, 1974 9:30 a.m. to 1:00 p.m. 155 University Avenue, Toronto, Ontario

Evidence statements in respect to the above questions should be filed on or before Monday, 22nd April, 1974, in accordance with the Commission's Practice and Procedure.

### PHASE II

1. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date, that there is a need for a new International Airport for the central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario.

To receive any evidence in respect to the following questions:

- 1) Should the new International Airport be principally international in character or should it serve some other functions?
- 2) What airline traffic sectors or parts thereof should be allocated to the new International Airport in the major first phase in order to relieve the disturbance caused by flight operations at Malton?
- 3) To what extent should domestic and United States traffic

be served at the new International Airport in addition to the airport having an international role?

- 4) Should the opening date of the major first phase be 1980 or later?
- 5) Should there be a partial or limited opening of the new International Airport prior to 1980?

#### DATE AND PLACE OF ORGANIZATIONAL HEARING

Monday, 13th May, 1974 9:30 a.m. 155 University Avenue, Toronto, Ontario

#### DATE AND PLACE OF PUBLIC HEARINGS

Commencing Tuesday, 21st May, 1974 9:30 a.m. to 1:00 p.m. 155 University Avenue, Toronto, Ontario

Evidence statements in respect to the above questions should be filed on or before Tuesday, 7th May, 1974, in accordance with the Commission's Practice and Procedure.

2. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date, that there is a need for a new International Airport for the Central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario.

To receive any evidence in respect to the following questions:

- 1) What should be the nature of the ground access to the new International Airport?
- 2) What should be the nature of the inter-airport transportation between Toronto International Airport, Malton, and the new International Airport?
- 3) From the point of view of passenger convenience, should a downtown terminal or terminals be established in respect of Toronto International Airport, Malton, or the new International Airport?

#### DATE AND PLACE OF ORGANIZATIONAL HEARING

9:30 a.m. Monday, 13th May, 1974 155 University Avenue, Toronto, Ontario

DATE AND PLACE OF PUBLIC HEARINGS

Commencing Monday, 3rd June, 1974 9:30 a.m. to 1:00 p.m. 155  
University Avenue, Toronto, Ontario

Evidence statements in respect to the above questions should be  
filed on or before Friday, 17th May, 1974, in accordance with the  
Commission's Practice and Procedure.

## GOVERNMENT OF CANADA WITNESSES

### 1. (a) GOVERNMENT OF CANADA WITNESSES

Allward J.	Irwin, N.A.
Barr, Dr. J.	Joicey, P.
Basi, P.	Kriss, H.
Beak, A.	Law, Wm.
Beinhaker, P.	Lightstone, A.
Belcher, J.	Lloyd, G.
Black, F.	Lorant, I.
Challies, G.	Lowthian, F.R.
Chan, B.	McIntosh, Dr. E.
Choukroun, J.M.	McKee, G.
Clarke, L.	McLeish, W.
Coulas, R.	McLeod, M.
Cross, A.	Menezes, O.
DeChiara, J.	Nasi, W.
Devitt, H.	Peaker, Dr. K.R.
Doshi, N.	Pearson, Dr. P.
Edmiston, R.	Peters, D.
Elek, A.	Potvin, L.
Filotas, L.	Reid, S.
Finley, H.	Ringham, M.
Fitton, L.	Ross, D.
Flynn, G.	Rowan, W.
Gallacher, E.	Sauberli, B.
Gartner, J.	Saunders, H.
Gillen, J.	Scott, K.
Ginsberg, I.	Simpson, C.
Gwilliam, R.	Sladek, G.
Hayes, P.	Smith, B.
Hopper, W.H.	Stone, D.
Hutchison, G.	



*Airport Inquiry Commission Report*

Tidd, P.

Vance, J.

Van der Linde, R.

Van Loon, J.

Walden, F.

Wentzell, R.

Willey, P.

Wilson, Mrs. M.

Wong, Ho-Kwan

Woods, L.

### **Qualifications of Witnesses**

**ALLWARD, James**

Qualifications: Member of the Royal Institute of British Architects, 1953; Member of the Royal Architectural Institute of Canada, 1963; Member of the Ontario Association of Architects, 1963; 1951-56 Architect: Farmer & Dark, Architects, London, England; 1956-58 Architect: Allward & Gouinlock, Toronto; 1958-63 Architect: Ontario Hydro; 1963-67 Architect: Short & Moffat & Partners, Toronto; 1967-73 Associate: Mathers & Haldenby, Toronto; 1973 Architect: Crang & Boake, Toronto; August 1973 Ministry of Transport, Canada, Senior Architect Toronto Area Airports Planning Team, Toronto.

**BARR, Dr. J.**

Qualifications: B.Sc. in Zoology and Doctorate in Avian Biology from the University of Guelph; with RCAF from 1956 to 1964; did research on management of water fowl on feeding biology, population dynamics and behaviour of certain birds; from 1972 to the present with LGL Inc as a consultant on the Mackenzie Valley gas pipeline, among other jobs.

**BASI, P**

Qualifications: Superintendent Land-Use Planning; Systems Planning and Construction Branch, Toronto Area Airports Project, Ministry of Transport, Canada; graduated Punjab University, India, B.Sc. Engineering (Civil) 1965; and University of Manitoba, Winnipeg, Master City Planning 1970.

**BEAK, A.**

Qualifications: Diploma in maths from London Polytechnical Institute; served in the R.A.F. and the R.C.A.F. as a pilot and administrator; since 1968, Chief of Aviation Planning & Research for the Canadian Air Transportation Administration and Division Chief.

**BEINHAKER, P.**

Qualifications: Graduated from McGill University, Faculty of Engineering, School of Architecture; partner of Peat, Marwick and Partners Consultants responsible for planning, design and development practice; has been involved in planning of airports, and related urban and regional development from 1966 as consultant to the Federal Ministry of Transport; from 1966 to 1968 directed two planning projects: the expansion of Dorval Airport, and the

Quebec Regional Area Airports System, including sites for a new international airport; in 1966 appointed project manager of a team responsible for the planning and development of the new airport, continued in this capacity until 1970, during which time the master plan was prepared, the terminal concept established, access facilities established and regional economic plans prepared in conjunction with the Province of Quebec; in mid-1970 became adviser to the Government of Canada on the Toronto Airport System and has continued in that capacity to date. Under his direction his firm has completed or is presently working on the following projects: The Jamaica Airports Project, the Master Plan for Ben Gurion Airport in Israel, and the Master Plan and Design for Afghanistan Kabul Airport.

**BELCHER, J.**

Qualifications: Deputy Manager JETS Office, Civil Aeronautics, Ministry of Transport, Ottawa; graduated B.Sc., University of Ottawa; received Diploma, Post-Graduate Studies, Queens University; and took Post-Graduate Courses at University of Ottawa and Carleton University.

**BLACK, F.**

Qualifications: STOL Project Officer, Canadian Air Transportation Administration, Ministry of Transport, Ottawa.

**CHALLIES, G.**

Qualifications: Bachelor of Architecture, McGill University, Montreal, Member of Royal Architectural Institute of Canada, and Province of Quebec Association of Architects.

**CHAN, B.**

Qualifications: Bachelor of Civil Engineering, McGill University, 1968; Master of Science, Major in Transportation Planning, University of Saskatchewan, 1972.

**CHOUKROUN, J.M.**

Qualifications: Graduated PH.D (Regional, Science) University of Pennsylvania; Master in City Planning, University of Pennsylvania; Ingénieur de l'Ecole Polytechnique (Paris, France); and is now a Senior Consultant with Peat, Marwick and Partners, Associated with the Toronto Area Airports Project since May 1973.

**CLARKE, L.**

Qualifications: Graduated Bachelor of Science, McGill University,

1965; Master of Business Administration, University of Toronto, 1968; employed by Peat, Marwick and Partners.

COULAS, R.

Qualifications: Graduate of the University of Toronto with a B.A.,Sc. in Electronics Engineering in 1962; joined the Ministry of Transport, Air Administration in May of 1962; worked in the Ottawa headquarters for four years in the Instrument Landing Systems Engineering Branch, and has been involved in the design, construction and flight checking of aircraft instrument landing systems and other electronic aids to navigation; in August, 1966, moved to Air Services — Western Region, in Edmonton as Supervisor of Engineering in the Telecommunications and Electronics Branch; in July, 1970, moved to Air Services — Central Region, in Winnipeg as Superintendent of Design Construction; joined the Toronto Area Airports Project Team in Toronto in October 1971, and has been with the team since that time as Chief of Airport Facilities Planning and Special Studies; areas of responsibilities include noise annoyance studies, demand forecasting, environmental engineering and airport operations planning.

CROSS, A.

Qualifications: Graduated B.Sc. Electrical Engineering, University of New Brunswick 1962; now with Ministry of Transport, Toronto Area Airports Project, Toronto, as Superintendent, Communications Facilities.

DeCHIARA, J.

Qualifications: Graduated Bachelor of Applied Science, University of Toronto 1966.

DEVITT, H.

Qualifications: General Manager of Toronto International Airport; employed in the Ministry of Transport for the past 11 years; superintendent of the Ministry's field and equipment fleet for all Government airports operated by the Ministry in Canada; responsible for the operation of the national vehicle fleet, Crash Rescue Operations and standards to which the airports are maintained in the field or ground sense; since 1967 has been used in special assignments with the Public Service Commission, and developing courses geared to the new Montreal International Airport at Ste. Scholastique, Quebec; in 1971 came to Toronto as Regional Manager of Airports throughout Ontario; from July 1, 1972, responsible

for the day to day operation of Toronto International Airport's ground facilities.

DOSHI, N.

Qualifications: M. Eng. (Operations Research) — Department of Industrial Engineering, University of Toronto, June 1972; M.A. Sc. (Control Systems) — Department of Electrical Engineering, University of Waterloo, Waterloo, September '71; B. Tech. (Honours) — Department of Electrical Engineering, I.I.T., India, May 1969.

EDMISTON, R.

Qualifications: B.Sc. in Mathematics from Southern Methodist University, Dallas, Texas; graduate studies in physics and computer sciences at the University of Texas in Austin; teaching assistant at the Physics Department at the University of Texas, 1964 to 1965; from 1965 to the present, an engineer, scientist and consultant in acoustics with Tracor Incorporated, Austin Texas; since joining Tracor has participated as an acoustical consultant in architectural design, design of acoustical radiators and absorbers, noise surveys, equalization of sound systems and studies on community noise, active in the development of computer techniques and applications such as the analysis of complex acoustical systems ranging from fog systems to petro-chemical process systems; has written programmes for producing sound level contours from predicted or measured acoustic levels in noisy areas; has designed a complete hardware/software system for the analysis of acoustical data, such as aircraft fly-over recordings; worked in the area of reducing community disturbance due to airport operations, using psychological modelling and simulation techniques; his firm has been consultants to the Federal Aviation Administration of the United States, to the National Aeronautics and Space Administration, and to the Port Authority of New York and New Jersey.

ELEK, A.

Qualifications: Mechanical and Electrical Engineering Degree from the University of Budapest in 1950; member of the Association of Professional Engineers of Ontario; research engineer for the Institute of Electrical Power Research in Budapest, Hungary, from 1951 to 1956; research engineer for the Central Electricity Generating Board in Leatherhead, Surrey, England, in 1957; research engineer for Ontario Hydro from 1962 to 1964; operations research specialist for Peat, Marwick and Partners from 1964 to 1969; now a



partner in that firm and director of the goods, transportation and airport section; has had experience in forecasting passenger facility planning for the new Montreal International Airport; was involved in the forecasting of airport passenger facility requirements for Jamaica and the development of simulation programmes for air passenger facilities; is now involved in forecasting traffic assignment studies and passenger facilities planning for the Toronto Area Airports Planning Project; has done various transportation studies in the area of container traffic for clients in Canada, the United States and the Far East.

**FILOTAS, L.**

Qualifications: B.A.Sc., from Toronto in Engineering Physics; M.A. Sc. from Toronto in Aeronautical Engineering; Ph.D. from Toronto in Aerodynamics and Acoustics; from 1965 to 1967 worked at deHavilland Aircraft of Canada, Limited, in the Aeronautical Engineering Advanced Projects Office; from 1970 to 1972 Assistant Professor of Aeronautical Engineering at the University of Maryland; from 1972 with the Ministry of Transport as a Senior Research Officer in Civil Aviation Planning.

**FINLEY, H.**

Qualifications: 1971 Chief of Aviation Safety Division, Ottawa headquarters, Ministry of Transport, Canada, member of the Associate Committee on Bird Hazards to Aircraft; has participated in a number of meetings to do with ICAO, International Security of Aviation, dealing with the subject of bird hazards to aircraft; has been active in other international aeronautical associations, including flight safety, accommodation and International Air Transport Association.

**FITTON, L.**

Qualifications: All pilot's licences, including airline; served in R.C.A.F. 1940-1946; joined Department of Transport in 1947 as Civil Aviation Inspector, was responsible for airport inspection, licensing and flight inspection of air navigation aids; Regional Superintendent of Airways, Maritime Region; Superintendent of Airways, Ottawa, and Executive Assistant to the Director General, Ottawa; during this period, duties consisted of various airport planning and administrative functions, including representing Canada at a number of International Civil Aviation meetings of

ICAO, and participating on the panel dealing with air operations; made General Manager of Airport Planning in 1972.

FLYNN, G.

Qualifications: Graduated B.A.Sc. University of Toronto, Chemical Engineering, 1968; M. Eng. University of Toronto, Environmental Engineering.

GALLACHER, E.

Qualifications: Project Property Manager, Property Administration Branch, Department of Public Works, Canada, providing Interim Property Management Services for the Ministry of Transport, Canada, New Toronto International Airport Project Team.

GARTNER, J.

Qualifications: B.Sc. in Engineering Geology from the University of Toronto, 1959.

GILLEN, J.

Qualifications: 6 years experience in computer systems design, statistical analysis and operations research; worked as a computer specialist for Consolidated Computer, 1969, for University of Toronto 1969-1971, and for deHavilland Aircraft in 1971; has been a private consultant of Transit Systems Planning; joined the Toronto Area Airports Project, Ministry of Transport, Canada, July 1972 as Superintendent, Forecasting Computer Services.

GINSBERG, I.

Qualifications: Graduated Bachelor of Engineering Degree in Engineering Physics, McGill University, 1954; employed by Ministry of Transport, Canada, Toronto Area Airports Project, Toronto, as Chief, Electronic Facilities Planning and Construction.

GWILLIAM, R.

Qualifications: B.Sc. Special Honours Degree, King's College, University of London, and Post Graduate Diploma from Victoria University, Manchester, in Town and Country Planning; Post Graduate training in Cadastral and Engineering Surveying and Land Registration; Fellow of the Royal Institute of Chartered Surveyors; Fellow of the Royal Town Planning Institute; in Canada, has undertaken work for the Federal Government, several provincial governments and a number of municipal governments; partner in firm of Peat, Marwick and Partners, in which he is Director of Regional and Resource Development.

**HAYES, P.**

Qualifications: Senior Consultant in Goods and Air Transportation Division of Peat, Marwick and Partners; graduated University of Toronto B.A. 1956, Master of Business Administration, 1966.

**HOPPER, W.H.**

Qualifications: B.Sc. in geology from American University, Washington, D.C.; M.B.A. University of Western Ontario; joined the National Energy Board as senior economist in 1961 until 1965; appointed senior advisor on the Energy Policy Co-ordination and Review in the Energy development sector of Energy, Mines and Resources, 1972; in 1973, made Assistant Deputy Minister, Energy, Mines and Resources, Canada.

**HUTCHINSON, G.**

Qualifications: Graduated from Air Services Training School in Southampton, England December 1954; six years in British Merchant Navy as Radio Officer for Marconi International Marine Communication Company; 1960-74 joined Department of Transport, Canada, as Radio Operator and served at various postings.

**IRWIN, N.A.**

Qualifications: Partner in Peat, Marwick and Partners and international partner responsible for urban development; engineer; member of many professional associations; has written numerous articles, a special lecturer in urban transportation planning with the graduate students Department of Civil Engineering at the University of Toronto; has directed planning studies for many urban areas, including Toronto, Oshawa, Regina, New York, Boston and Washington.

**JOICEY, P.**

Qualifications: B.Sc. Carleton University, 1968 Civil Engineering; from 1963-present, Superintendent, Passenger Terminal Facilities Planning Toronto Area Airports Project. Responsible for the determination of facility requirements and planning of the air passenger terminal facilities for the proposed New Toronto International Airport.

**KRISS, H.**

Qualifications: Bachelor of Science in Engineering and Business at U of T 1959; Master of Science in Industrial Management at MIT 1961; employed at Peat, Marwick and Partners from 1961 in position as Director, Policy Planning and Research; has been active

in areas of consulting related to airport planning, transportation economics, physical distribution and corporation planning; consultant to the Toronto Area Airport Project since 1972.

LAW, Wm.

Qualifications: Graduated from Queen's University in Mechanical Engineering; for past 25 years, engaged in many aviation activities; from 1960 to 1972 with deHavilland Aircraft as Special Projects and Senior Research Engineer; involved in many research development projects affecting the design and operation of deHavilland Aircraft; since 1972 with the Ministry of Transport, Canada, Toronto Area Airports Project, as Chief Civil Aeronautics Research and Special Research Projects; directs a division responsible for research and analysis in the area of civil aeronautics.

LIGHTSTONE, A.

Qualifications: B.Sc. degree in 1967 and M.Sc. in 1969 and Ph.D. in 1973 from the University of Toronto, Department of Electrical Engineering; from 1972 to date has been associated with Valcoustics Limited as a consultant in architectural acoustics and noise control; has published several technical papers.

LLOYD, G.

Qualifications: Regional Superintendent, Airways, for the Ontario Region, Canadian Air Transportation Administration, Ministry of Transport; joined the R.C.A.F. in 1942, served as a pilot in R.C.A.F. and R.A.F. until 1964; shortly after leaving R.C.A.F. joined the Airways Division of the Ontario Regional Office of the Department of Transport, Canada; until 1972 worked mainly in the flight checking, airport development and noise aspects of airways work; was appointed Regional Superintendent in 1972, and is now responsible in particular for certain noise abatement procedures in the region.

LORANT, I.

Qualifications: Civil Engineer, graduated from University of Hungary; hydrologist for the Greater London Council Study of Urban Hydrology; assisted in the design of the Heathrow Airport extension; has been actively engaged in civil engineering projects relating to drainage since graduation.

LOWTHIAN, F.R.

Qualifications: Supervisor, Terminal Control Unit, Toronto Area Control Centre.



McINTOSH, Dr. E.

Qualifications: Graduated B.S.A., Saskatchewan, Soil Science, 1962; M.Sc. British Columbia, Soil Science 1964; Ph.D., Adelaide, Clay Mineralogy, 1969, Soil Science Doctorate, University of Iowa; employed 1962-64 University of British Columbia, Research Assistant; 1964-66 Canada Department of Agriculture, Vancouver, Research Officer; 1966-69 Waite Institute University of Adelaide, Research Assistant; 1969 University of Saskatchewan, Visiting Lecturer; 1970 University of Guelph, Assistant Professor.

McKEE, G.

Qualifications: Noise Abatement Officer of the Ministry of Transport, Ontario Region; four and one-half years experience in R.C.A.F.; four years as Air Traffic Control Assistant, Toronto International Airport; eight and one-half years Air Traffic Control, Toronto International Airport; six years at AVRO Aircraft Limited as mobile radio operator; and nine years (present position) as Noise Technician and Noise Abatement Officer, Ministry of Transport.

McLEISH, W.

Qualifications: Over 30 years in various areas of Canadian aviation; a degree in engineering from McGill; Master's Degree in Aeronautical engineering University of Michigan; fellowship at Horace Rackan School of Graduate Studies; aircraft inspector at beginning of World War II with British Air Commission in Canada, later became flying instructor with RCAF; then transferred to training in Mosquito bomber operations; afterwards, did research in the United States on supersonic aircraft; held various posts with RCAF, including Chief Airworthiness Engineer at the Central Experimental Approving Establishment at Uplands; in that capacity, responsible for the design, manufacturing and testing of experimental military aircraft systems; later Chief of Aircraft Maintenance with NATO division in Europe; joined Ministry of Transport, Canada, in 1964 as Chief Aeronautical Engineer; held that position until appointed Director of Civil Aviation in 1970; subsequently was appointed Director General of Civil Aeronautics for Canada; now responsible for the development of national plans, policies, standards and procedures with respect to aeronautical programmes in the fields of civil aviation, air traffic control,



telecommunications and electronics; fellow of the Canadian Aeronautics and Space Institute; currently Vice-President and a Counsellor of that Institute.

McLEOD, M.

Qualifications: Bachelor of Applied Science from the University of Toronto in June 1967; Master of Applied Science from the University of Toronto in June 1969; Civil Engineer's Degree from M.I.T. in September 1972; from November 1968 to November 1970 with Peat, Marwick and Partners as Transportation Consultant, involved there in urban transportation planning studies and a study of airport access for the New Montreal International Airport; from September 1972 has been with the Toronto Area Airports Project as Traffic and Ground Transportation Analyst.

MENEZES, O.

Qualifications: Graduated B.A. (Hons.), Economics, University of Bombay, India; M.A. Statistics and Mathematics, University of Poona; M.A. Economics (with courses in Statistics), Princeton University, New Jersey, U.S.A.; won Procter Fellowship; Ph.D. Economics, Princeton University, 1958; employed 1959-63 Planning Commission, Government of India, New Delhi, Senior Research Officer (Economics) Forecasting of demand supply, etc., for various industries; 1964-67 Ministry of Planning, Government of Brazil, Rio de Janeiro, Economist — forecasting demand, etc., for various industries; 1967 Ball State University, Muncie, Indiana, Assistant Professor of Economics; 1968-71 Bulova Watch Company, New York, Project Manager, Operations Research, forecasting sales of watches, etc. (statistical analysis); 1971-72 Getty Oil Co., Los Angeles, California, Economist, forecasting demand and supply for energy products and minerals; since 1972 to present, Toronto Area Airports Project, Toronto Statistician.

NASI, W.

Qualifications: Chief, Statistics and Forecasts Division, Corporate Planning — Air, Canadian Transportation Administration, Ministry of Transport, Canada; B.Sc. in mathematics (Statistics); graduate studies in transportation engineering, and advanced management seminars in public policy-making and project management; navigator and radio officer in the Canadian Armed Forces; Research Officer in the various branches of government; presently Chairman, North Atlantic Traffic Forecasting Group 1973-74,

which is preparing a ten year forecast of traffic in the North Atlantic for ICAO.

PEAKER, Dr. K.R.

Qualifications: Bachelor of Science degree in Engineering from the University of Manitoba in 1955 and in 1956 diploma from Imperial College, University of London, United Kingdom; in 1964, Doctor of Philosophy degree from the University of Manchester, England; 1956-57 Engineer in the United Kingdom on various property projects; 1957-58 employed by William Trow Associates Limited as a Project Engineer responsible for the supervision of engineers and field personnel involved in sub-soil studies for bridges, embankments etc.; 1962-64 employed by the University of Manchester, England as a Lecturer in Soil Mechanics to undergraduate and postgraduate students; 1964 joined William Trow Associates Limited as Senior Partner and Associate; current responsibilities involve all aspects of Soil Mechanics for numerous projects throughout Eastern Canada and overseas; member of the Association of Professional Engineers of Ontario; Association of Consulting Engineers, Manitoba; Association of Consulting Engineers, Newfoundland; American Society of Testing Materials; International Society of Soil Mechanics and Foundation Engineering; Canadian Geotechnical Society; International Society for Rock Mechanics; and the Association of Consulting Engineers of Canada.

PEARSON, Dr. P.

Qualifications: B.A.Sc. in Civil Engineering from University of Waterloo; Doctorate, 1969, from University of Waterloo; Master of Science in Transportation Planning from the University of California, Berkley; member of the Association of Professional Engineers and the American Society of Civil Engineers; presently the principal of P.M.L.P. Consultants Limited; has acted as adviser to the Government and industry on several aspects of transportation systems planning and economic evaluation; prior to July 1971, Consultant to the United States Department of Transport on the National Transportation Planning Policy; Associate Professor 1969-71 at Memorial University, Newfoundland; has been a Lecturer at the University of Waterloo; teaching fellow and lecturer at University of California; July 1971 to November 1972

Director, Transportation and Systems Planning, S.W.R. Consultants Limited; author or co-author of over 40 publications dealing with transportation planning and economics.

PETERS, D.

Qualifications: R.A.F. 1943; with Royal Navy and joined R.C.A.F. in 1952, serving until 1972; 14 years' experience as an aviation safety officer, including three years as a senior staff officer of Flight Safety in Mobile Command Headquarters; joined Ministry of Transport, Canada, in 1972 as an aircraft accident investigator, and moved to the Aviation Safety Division in April 1973 as a Safety Officer; as a result of research into the problem of wake turbulence, has acquired knowledge of the latest research being undertaken in the United States and in England.

POTVIN, L.

Qualifications: B.Sc. in Engineering in 1958 from University of Manitoba; 1958-70 positions in the Telecommunications Branch of Ministry of Transport, Canada; 1967-70 Superintendent of Maintenance and Operations, Western Region, Ministry of Transport, Canada, responsible to Regional Control of the Telecommunications and Electronics Branch for the maintenance and operation of all electronic facilities in the Western Region; 1970-71 Superintendent of Radar and Special Devices, Telecommunications and Electronics Branch, Ministry of Transport, Canada; there responsible for chief design and construction, for specifications design, and for determining all the radar and automatic equipment required by the Ministry of Transport, Canada; from 1971 to present, Manager of Systems Planning on Construction, Toronto Area Airports Project Team, Ministry of Transport, Canada, responsible to the General Manager for an Area Airports Master Plan, for the development of an Airport Master Plan for New Toronto International Airport, and for the design and construction of airport facilities at New Toronto International Airport.

REID, S.

Qualifications: Graduated in 1966 with a Bachelor of Science degree in Civil Engineering from the University of Strathclyde, Glasgow, Scotland, and in July 1972 joined the Toronto Area Airports Project Team as Superintendent, Buildings and Utilities Engineering.

**RINGHAM, M.**

Qualifications: Received Bachelor's degree in Civil Engineering from the University of Guelph in 1966 and in 1969, received his Master of Science degree also from the University of Guelph; in June 1972, joined the Toronto Area Airports Project Team as the Superintendent, Civil Engineering.

**ROSS, D.**

Qualifications: Senior Consultant, Goods Air Transport Division, Peat, Marwick and Partners; B.Sc. in Honours Mathematics from the University of St. Andrews; postgraduate Diploma of Distinction in Numerical Analysis and Automatic Computing from the University of Cambridge; one further year of graduate work in Advanced Computing Programming Techniques; 1963-66 with I.B.M. United Kingdom Limited as a systems analyst in the area of application of computers to scientific problems; in 1966, Chief Systems Analyst in the Manufacturing Division of Babcock-Wilcox Limited; 1966-69 Commercial Director for Alexander Russel Limited; responsible for administration in the fields of finance management and personnel; 1969 to date with Peat, Marwick and Partner as a consultant in the area of management science; work includes studies of inventory control systems, parts warehousing, etc.; extensive involvement in the Toronto Area Airports Project.

**ROWAN, W.**

Qualifications: Received his Bachelor of Science degree in Agricultural Engineering from the University of Guelph in 1961; in 1962, Bachelor of Applied Science degree in Civil Engineering from the University of Toronto and in 1965, Master of Applied Science in Structural Engineering from the University of Toronto; in 1971, became Manager of the Guelph office for Morrison, Hershfield, Burgess and Huggins Limited, and in 1972 became Manager and Vice-President of Morrison, Hershfield, Theakston and Rowan Limited, Guelph, Ontario.

**SAUBERLI, B.**

Qualifications: 1957-70 Supervisor, Cargo & Baggage Facilities and Equipment Air Canada, H.Q., Montreal; 1970-73 Project Leader Cargo Facilities Planning, Air Canada, H.Q., Montreal; 1973-74 Cargo Facilities & Equipment Manager, Air Canada Cargo Terminal, Toronto; 1974 Superintendent, Air Cargo Facilities Planning T.A.A.P.



**SAUNDERS, H.**

Qualifications: A Senior Research Officer with the Aviation Planning and Research Division, Civil Aeronautics Branch, Ministry of Transport, Canada; B.Sc. degree in Mathematics and Physics from Bishop's University in 1947.

**SCOTT, K.**

Qualifications: Project General Manager, Toronto (Malton) Implementation Team, Ministry of Transport, Canada; Graduated in 1952 from University of British Columbia in Electrical Engineering; three and one-half years with DuPont of Canada Limited as Design Engineer on Chemical Process Plants; Feb. 1955 joined Ministry of Transport, Canada, as Regional Electrical Engineer, Edmonton, dealing with power and lighting construction and maintenance at airports; Aug. 1961 Superintendent of Electrical maintenance Ministry of Transport, Canada; Aug. 1968 — Jan. 1970 Member Toronto Planning Team, Operations Planning, Ministry of Transport, Canada; Jan 1971 — Oct. 1971 — Acting Chief, Works and Plant Engineering Division; Oct. 1971 to present — Manager, Planning Team for Short Range Malton Airport Master Plan; Manager of Toronto (Malton) Implementation Team.

**SIMPSON, C.**

Qualifications: Chief of Airspace Organization and Management, Toronto Area Projects Team since December 1972; commenced his flying career in 1948; flew with the U.S. Army in the Korean War 1950-51; served from 1952-59 as an officer in the R.C.A.F. in various capacities as pilot, flying instructor, station flight safety officer, and approach officer; licensed as an Air Traffic Controller of the Department of Transport, Canada in 1959; served at Malton 1959-72; Air Traffic Controller licence endorsed for three primary divisions of air traffic control: tower control controller at Toronto International Airport and Toronto Terminal Control; assigned to various phases of planning for air traffic services, including procedural planning and special projects.

**SLADEK, G.**

Qualifications: Bachelor of Science Degree in Engineering from University of Manitoba; past 8 years spent with Kates, Peat, Marwick, management and planning consultants.

**SMITH, B.**

Qualifications: B.A.Sc. in Industrial Engineering at University of



Toronto; employed 1970-71 Technical Counsellor at S.D.L. Computer Services, in Toronto — acted as an adviser and provided technical support for a variety of computer users; 1972 to present — Operations Research Engineer — involved in computer programming applications and statistical studies in the Special Studies and Research Section of the Toronto Area Airports Project.

STONE, D.

Qualifications: Wartime bomber pilot with the Ministry of Transport, Canada, for the past 33 years; air traffic controller at several major airports in Canada; an airline transport pilot in the Civil Aviation Branch of the Ministry; has been responsible for the administration, development and adequacy of airports with respect to flight safety, particularly in the areas of navigational aids, runways, lighting, noise, licensing, and obstruction zoning.

TIDD, P.

Qualifications: 1962 Land Surveying — Inter, R.I.C.S.; 1971 Industrial Eng. — B.A.Sc. (Toronto); 1972 Operations Research — M. Eng. (Toronto); employed 1962-67 Land Surveyor (Trinidad-Tobago); since 1972 Operations Research Engineer, Toronto Area Airports Project.

VANCE, J.

Qualifications: B.Sc. in Civil Engineering in 1960 from Queen's University; in 1961 M.Sc. in Engineering in the subject of Transport Engineering from the University of California at Berkley; 1961-63 worked at C.C. Parker Inc., and at Parsons, Brinkerhoff Limited as a traffic engineer; 1963-64 worked with Parsons, Brinkerhoff Limited as Transportation Engineer on the Baltimore Metropolitan Area Transit Study; 1964-67 with the Ontario Department of Transport as Transportation Systems Engineer, and was responsible in that capacity for the Metropolitan Region Transportation Study; 1967-70 an associate and senior transportation engineer with the De Leuw Cather Company of Canada Limited, and worked on various projects including a study of ground transportation at the Toronto International Airport; from 1970 has been a transportation systems analyst with the Toronto Area Airports Projects Team.

VAN der LINDE, R.

Qualifications: B.A. in 1968 from University of Waterloo; M.A. in Geography from University of Toronto in 1969; various teaching

posts from 1966 to 1973 at the University of Waterloo, at Erindale College, and at Scarborough College, in cartographic methods, economic geography and like subjects; several publications; associated for some time with Agrolgy Consultants Limited as an agrologist.

**VAN LOON, J.**

Qualifications: B.Sc. degree in Civil Engineering from University of Toronto in 1958; 1958-61 at Massachusetts Institute of Technology, graduated in Transportation Planning; 1961-68 with Peak, Marwick and Partners, as technical manager and senior transportation engineer; 1968-70 manager and senior transportation engineer; 1968-70 Director of Transportation Planning for the City of Hamilton; 1970-71 Deputy Director for the Traffic Engineering Services Department for The Regional Municipality of Ottawa-Carleton; from 1971 with Transportation Systems Associates as consultant to the Ministry of Transport, Canada, and has worked on a number of transportation problems including studies related to ground access to airports.

**WALDEN, F.**

Qualifications: Graduated in 1943 in Honours Biology from University of Toronto, specialized in ecology and related matters; served in the war in the Meteorology Branch; after the war taught chemistry at the Ontario Agricultural College until 1947; 1947 to present, a biologist, supervisor and administrator with the Ontario Department of Lands and Forests, Ministry of Natural Resources, Fish and Wildlife Division; has worked in various areas from 1947 through to date; 1971-72 Director of the Wildlife Branch of this Department; 1972 to present, Special Adviser in the Fish and Wildlife Division of the Ontario Department of Lands and Forests.

**WENTZELL, R.**

Qualifications: Graduated in 1951 from the Nova Scotia Institute of Land Surveying and in 1954 was commissioned as a Nova Scotia Land Surveyor; B.Sc. 1958 from McGill University in Civil Engineering; in May 1972 joined the Toronto Area Airports Project as Chief, Construction Engineering with responsibilities for engineering design and construction management.

**WILLEY, P.**

Qualifications: Presently employed as Chief-Project Coordination and Information Systems for the Toronto Area Airports Project.

WILSON, Mrs. M.

Qualifications: An associate consultant with Peat, Marwick and Partners; holds the degree of B. Comm. in marketing and an M.B.A. in Transportation Economics.

## **1. (b) OTHER WITNESSES**

### **Witness**

ADAMS, Aileen

AIR CANADA

ALMACK, Lorne D.

ATHERTON, David Lawrence

BERGER, Karen J.

BICKLEY, John

BHOOLA, Bobby

BRAMPTON, Corporation of  
the City of

CANADIAN OWNERS & PI-  
LOTS ASSOCIATION

CENTENNIAL COMMU-  
NITY ASSOCIATION

CICCI, Dr. F.

CROTHERS, William F.

DAVIES, Brenda

DAY, Lawrence H.

DEACON, Donald

de HAVILLAND AIRCRAFT  
OF CANADA, LIMITED

DENNIS, Monte

DIAMOND, A.J.

DUGGAN, John

DUNN, Brian

### **See Also**

Glenn, Clayton

Wiley, A.T.

People or Planes

Elms Rexdale Residents' Asso-  
ciation

New Airport Now

Centennial Community Associ-  
ation

Heath, Thomas M.

Frosst, A.C.

Bhoola, Bobby

de Havilland Aircraft of Can-  
ada, Limited

People or Planes

The City of Toronto

The Liberal Caucus of Ontario.

Cicci, Dr. F.

Eggleston, B.

Jackson, R.G.

McIntyre, R.B.

Ribner, Dr. H.S.

Simpson, R.W.

Toplis, A.F.

Whiting, R.B.

Wiley, Dr. J.R.

City of Toronto

City of Toronto

Ontario Aviation Enthusiasts  
Society

**Witness**

EGGLESTON, B.

EIDT, C.H.

ELLIS, J.B.

ELMS REXDALE RESIDENTS' ASSOCIATION

ETHERINGTON, Virginia

ETOBICOKE, Corporation of the Borough of

FALLIS, Kenneth E.

FINDLAY, Gordon

FOSTER, Colonel Charles

FOSTER, Lois

FROSST, Allen Chester

FRUEHAUF, Winfried

GLEN, Andrew

GLENN, Clayton H.

GODFREY, Dr. Charles M.

HAMER, Ian M.

HARRIS, Andrew S.

HARTSHORN, William G.

HEATH, Thomas M.

HIDAKA, Kunio

HODGE, Gerald

HOMENUCK, H.M.P.

HUMBERLEA COMMUNITY ASSOCIATION

JACKES, William

JACKSON, Ronald G.

KETTLE, J.

LATTA, Martha Graves

**See Also**

de Havilland Aircraft of Canada, Limited

The Regional Municipality of Niagara

City of Toronto.

Berger, Karen J.

Society for Aircraft Noise Abatement

Truman, Robert S.

People or Planes

Canadian Owners & Pilots Association

Air Canada

People or Planes

The Town of Whitchurch-Stouffville

The Corporation of the City of Brampton

The Town of Whitchurch-Stouffville

City of Toronto

City of Toronto

Jacks, William

Humberlea Community Association

de Havilland Aircraft of Canada, Limited

City of Toronto



*Airport Inquiry Commission Report*  
**Witness**

LEWIS, Paul F.

LIBERAL CAUCUS OF  
ONTARIO

MACLEAN, Gary B.

MacMILLAN, Dr. Donald  
Angus

MARKHAM, The Town of

McINTYRE, R.B.

MISSISSAUGA, Corporation of  
the City of

MORROW, Vern

MUIRHEAD, Clark T.

NEW AIRPORT NOW

NIAGARA, The Regional  
Municipality of Edt, C.H.

ONTARIO AVIATION  
COUNCIL

ONTARIO AVIATION EN-  
THUSIASTS' SOCIETY

OSLER, S.L.

PATERSON, D.M.

PAYNE, Brian David

PENTLAND, William Thomas

Crothers, William F.

PICKERING, Corporation of  
the Town of

PICKERING, Ward I of the  
Town of

POLLUTION PROBE

**See Also**

Society for Aircraft Noise Aba-  
tement

Deacon, D.

Rexdale Citizens' Group  
(1974)

The Regional Municipality of  
Niagara

Paterson, Donald

Winter, John O.

de Havilland Aircraft of Can-  
ada, Limited

Waite, William D.

People or Planes

Bickley, John

MacMillan, Dr. D.A.

Pentland, W.T.

Dunn, Brian

Pollution Probe

Town of Markham

Ontario Aviation Council

PEOPLE OR PLANES

Almack, Lorne D.

Fallis, Kenneth E.

Godfrey, Dr. C.M.

Muirhead, Clark T.

Thompson, Victor Albert

Winterhalt, William Howard

Willis, Derek

Searle, Bruce R.

Osler, Sanford L.

**Witness**

PRESBYTERY OF EAST  
TORONTO  
RATCLIFF, Gordon  
REXDALE CITIZENS'  
GROUP 1974  
RIBNER, Dr. Herbert Spencer

RICHARDS, Norval Richard  
RICHARDSON, Douglas  
RITCHIE, D.A.  
ROBERTSON, Dianne  
ROBINSON, Thelma  
SALVERSON, Sandra  
SALVERSON, Scott  
SEARLE, Bruce R.  
SEARLE, Margaret Virginia  
SHAVER, P.D.  
SIMPSON, R.W.

SOCIETY FOR AIRCRAFT  
NOISE ABATEMENT  
SPIECE, Iva  
STIVER, A.W.  
STRATFORD, H. Ralph  
SULLIVAN, T.M.  
THOMPSON, Isobel  
THOMPSON, Victor Albert  
TINTI, Alva  
TOPLIS, A.F.

TORONTO, City of

**See Also**

Warne, D.M.

Town of Whitchurch-Stouffville  
McLean, Gary B.

de Havilland Aircraft of Can-  
ada, Limited

Ward I of the Town of Pickering

de Havilland Aircraft of Can-  
ada, Limited  
Etherington, Virginia and  
Lewis, Paul F.

People or Planes

de Havilland Aircraft of Can-  
ada, Limited.  
Day, L.H.  
Diamond, A.J.  
Duggan, J.  
Ellis, J.B.  
Hodge, G.  
Homenuck, H.M.P.  
Kettle, J.  
Voss, G.

*Airport Inquiry Commission Report*

**Witness**

TRUMAN, Robert

VOSS, Dr. Gunther

WADE, Dr. J.H.T.

WAITE, William D.

WANSTALL, Anne

WARD, M.W.

WARDAIR, Canada Limited

WARNE, D.M.

WHITCHURCH-

STOUFFVILLE, The Town of

WHITING, Richard Benson

WILEY, A.T.

WILEY, Dr. John R.

WILLIS, Derek

WINTER, John O.

WINTERHALT, Wm. Howard

**See Also**

The Corporation of the Borough  
of Etobicoke  
City of Toronto

The Corporation of the City of  
Mississauga

Wardair, Canada Limited

Ward, M.W.

The Presbytery of East Toronto  
Harris, Andrew S.

Hidaka, Kunio

Ratcliff, Gordon

de Havilland Aircraft of Can-  
ada, Limited

Air Canada

de Havilland Aircraft of Can-  
ada, Limited

The Corp. of the Town of Pick-  
ering

The Town of Markham

People or Planes

## **Witnesses**

**ADAMS, Aileen**

Address: R.R. No. 2, Claremont, Ontario.

Qualifications: Writer and researcher in such areas as consumer reporting and social aspects.

**ALMACK, Lorne D., on behalf of People or Planes**

Address: R.R. No. 2, Claremont, Ontario.

Qualifications: Degree in mechanical engineering; for a number of years in engineering and manufacturing management; a management consultant for some 10 years; member of the Federation of Ontario Agriculture and Ontario Naturalists.

**ATHERTON, David Lawrence**

Address: Queen's University, Kingston, Ontario.

Qualifications: Graduate with a B.A. in physics and an M.A. in engineering from Cambridge University; in 1959 joined Feranti-Packard Limited; initiated research on pharmacal applications of super-conductivity in 1962; headed a group working first on computer memories and then on super-conducting magnets in 1971; 1971 appointed Associate Professor of Physics, Queen's University of Kingston (engineering physics); has written some 35 scientific papers and many technical articles; holds a number of patents; heads a team comprised of members from McGill and Toronto Universities investigating super-conducting magnetic levitation and linear synchronous motor propulsion for high speed inter-city transit; also a consultant and advisor to a number of international companies.

**BERGER, Mrs. Karen, on behalf of Elms Rexdale Resident's Association**

Address: 16 Pylon Place, Rexdale, Ontario.

**BICKLEY, John, on behalf of New Airport Now**

Address: 59 Kendleton Drive, Rexdale, Ontario.

**BHoola, Bobby, on behalf of Centennial Community Association**

Address: 14 Eringate Drive, Etobicoke, Ontario.

**BRAMPTON, The Corporation of the City of:**  
see: Heath, Thomas M.

Address: 24 Queen Street East, Brampton, Ontario.

CANADIAN OWNERS AND PILOTS ASSOCIATION

see: Frosst, Allen C.

Address: P.O. Box 734, Ottawa, Ontario. K1P 5S4

CENTENNIAL COMMUNITY ASSOCIATION

see: Bhoola, Bobby

Address: 10 Barval Court, Etobicoke, Ontario.

Submission signed by: Kenneth Hack

CICCI, Dr. F., on behalf of deHavilland Aircraft of Canada, Limited.

Address: deHavilland Aircraft of Canada, Limited

Qualifications: Ph.D. from the Institute of Aerospace Studies of Southampton University, and a degree from the Institute of Sound Vibration.

CROTHERS, William F., on behalf of People or Planes

Address: Box 214, Markham, Ontario.

Qualifications: Registered Pharmacist; member of the Board of Directors of Participation House, a residence home for cerebral palsy patients.

DAVIES, Brenda

Address: Cherrywood, Ontario.

Qualifications: Member of the Board of the Pickering Historical Society.

DAY, Lawrence H., on behalf of the City of Toronto

Address: Room 1105, 620 Belmont St., Montreal, Quebec. H3C 3G4

Qualifications: Bachelor of Commerce degree from Dalhousie University 1964 and commenced working for Bell Canada in that year; subsequently, attended McMaster University and obtained a Master of Business Administration, then resumed employment with Bell Canada; author of approximately 20 papers and conference presentations dealing with the impact of new communications systems for various social, economic and environmental impacts, writing a book on the future impact of telecommunications systems; presently the Staff Supervisor of the Business Planning Group of Bell Canada in Montreal, and has been with that group for approximately five years; this group performs a corporate and long-term planning function for Bell Canada and its primary responsibility is technological forecasting, assessment of secondary impacts, social and otherwise, of telecommunications systems.



DEACON, Donald

Qualifications: Registered stockbroker; member of the Legislative Assembly for the Province of Ontario, and Deputy Leader of the Liberal Caucus.

de HAVILLAND AIRCRAFT OF CANADA, LIMITED

see:

CICCI, Dr. F.

EGGLESTON, B.

JACKSON, Ronald G.

MCINTYRE, Robert B.

RIBNER, Herbert Spencer

SIMPSON, Robert Warren

TOPLIS, Arthur F.

WHITING, Richard Benson

WILEY, John R.

DENNIS, Monte C., P. Eng.

Address: R.R. No. 3, Claremont, Ontario. L0H 1E0

Qualifications: For seven years, has been associated with the planning of certain systems and the implementation of projects as a professional engineer.

DIAMOND, A.J., on behalf of the City of Toronto.

Qualifications: Faculty of York University, Toronto.

DUGGAN, John, on behalf of The City of Toronto

Address: c/o Howard, Needles, Tamen and Bergendoff, Alexandria, Virginia, U.S.A.

Qualifications: Associated with the consulting firm of Howard, Needles, Tammen and Bergendoff of Alexandria, Virginia; a Professional Civil Engineer, and an Airport Planner and Consultant.

DUNN, Brian, on behalf of Ontario Aviation Enthusiasts Society

Address: 34 Dalraith Crescent, Bramalea, Ontario. L6T 2X5

Qualifications: President of the Ontario Aviation Enthusiasts Society.

EGGLESTON, B., on behalf of deHavilland Aircraft of Canada, Limited.

Qualifications: Bachelor of Science degree from Bristol, England with a diploma from the College of Aeronautics at Carnfield, England.

EIDT, Conrad Harry

Qualifications: Engineer for The Regional Municipality of Niagara.

**ELMS REXDALE RESIDENTS' ASSOCIATION**

see: Berger, Karen J.

**ETHERINGTON**, Virginia, on behalf of: The Society for Aircraft Noise Abatement

Address: Toledo Road, Etobicoke, Ontario.

Qualifications: Secretary of the Society for Aircraft Noise Abatement and has held this position since the organization's inception in 1968.

**ETOBICOKE**, Corporation of the Borough of

see: Truman, Robert S.

Address: 550 Burnhamthorpe Road, Etobicoke, Ontario.

Evidence Statement signed by: W.L. Sorenson.

**FALLIS**, Kenneth E., on behalf of People or Planes

Address: R.R. No. 1, Locust Hill, Ontario.

Qualifications: 15 year resident in the immediate area of proposed Pickering Airport site; a professional agronomist and has worked for a number of years with the Ontario Ministry of Agriculture, Food in the Soils and Crops Branch.

**FINDLAY**, Gordon

Qualifications: President of Findlay Travel Limited, a travel agency which arranges advance booking charters.

**FOSTER**, Colonel Charles

Qualifications: Graduate of Oklahoma University with a degree of Bachelor of Science in aeronautical engineering; obtained a Master of Science in nuclear engineering from North Carolina State University; in the United States Air Force for 24 years and in that position was Commander of the first F102 fighter fleet in the Far East; worked with the Pentagon in research and development of the C5A and nuclear powered aircraft and in the study of supersonic aircraft.

On retirement from the air force, was appointed Director of the Office of Noise Abatement, Department of Transportation, U.S.A.; cojointly, was director of the joint office of DOT and NASA which coordinates noise and research, this office directs policy in respect to noise abatement for all forms of transportation including air

transportation; is presently designate of the Office of Environmental Quality of the Federal Aviation Administration (a division of DOT), in which position he will be responsible for the administrative activity in respect of noise abatement.

FOSTER, Lois B.A.

Address: 42 Anndale Drive, Willowdale, Ontario.

FROSST, Allan Chester

Address: Life Sciences Bldg., McMaster University, 1280 Main St., West, Hamilton, Ontario. L8S 4K1

Qualifications: Holds a Ph.D. in Physical Organic Chemistry; the Director of Research and Services at McMaster University in Hamilton; currently the Vice-President of the Canadian Owners and Pilots Association.

FRUEHAUF, Dr. Winfried

Address: 38 Redcastle Crescent, Agincourt, Ontario. M1T 1V3

Qualifications: A Professional Economist with a Master's Degree in Economics and Business Administration and a Ph.D. in Economics; presently working as an Energy Consultant and has been employed by the Province of Ontario as an Economist and a Policy Advisor to various cabinet committees, the Treasury of Ontario and the Minister of Economics and presently the Minister of Energy; has appeared as an expert witness or a witness to give testimony before the Canadian Transport Commission on behalf of the Province, the Energy Resources Conservation Board of Alberta on behalf of the Province of Ontario and the National Energy Board on both gas and oil matters.

GLEN, Andrew

Address: Glenbrook Farm, Locust Hill, Ontario.

GLENN, Clayton H.

Qualifications: A graduate of the University of Manitoba in Engineering in 1943; a Fellow of the Canadian Aeronautics and Space Institute; an Associate Fellow of the Royal Aeronautical Society; a member of the Corporation of Professional Engineers of the Province of Quebec; a member of the Transportation Development Agency, and Chairman of the International Air Transportation Association Airport Consultative Committee for the Toronto Area; served in a similar capacity with respect to the Mirabel Airport near Montreal; in 1943 joined Air Canada in an engineering capacity, worked in various technical areas and was active in the

development of the North Star; represented Trans Canada Airlines at AVRO on the Jetliner; work has included aircraft evaluation and selection, scheduling and deployment of aircraft and operational economics; in 1970 assumed the position of Vice-President of operational planning with Air Canada, and was responsible for fleet planning, scheduling, and the economical deployment of the fleet; presently Vice-President of Planning for Air Canada.

GODFREY, Dr. Charles M., on behalf of People or Planes

Address: R.R. No. 1 Goodwood, Ontario.

Qualifications: Specialized rehabilitation, medicine and is past director of a course in speech pathology and audiology at the University of Toronto; headed the Canadian rehabilitation team in Morocco in 1960.

HAMER, Ian M.

Address: "Westlea", 701 King Street, Whitby, Ontario, L1N 5A2

Qualifications: A Professional Engineer and Management Consultant; Fellow of the Royal Aeronautical Society, and the Canadian Aeronautics and Space Institute.

HARRIS, Andrew S., on behalf of The Town of Whitchurch-Stouffville

Address: 235 Wyman St., Waltham, Massachusetts 02154, U.S.A.

Qualifications: Specialist in the field of study of the response of humans to noise and development of airport noise studies; Supervisory Consultant with the firm of Bolt, Beranek and Newman Inc., Cambridge Office.

Bolt, Beranek and Newman have done a considerable number of studies on the evaluation of the impact of noise on individual and residential areas and varied land uses. It assisted in the development of the Noise Exposure Forecast concept for the FAA and has been involved in the application of the NEF procedures to describe the noise exposure present and forecast for over 50 civil airports.

HARTSHORN, William G.

Address: R.R. No. 3, Stouffville, Ontario.

HEATH, Thomas, M., on behalf of The Corporation of the City of Brampton

Address: c/o City of Brampton, 24 Queen Street East, Brampton, Ontario.

Qualifications: B.A. in (Human) Geography, Sir George Williams University; Graduate Studies in Geography and Planning at

McGill University and the University of Waterloo; Professional Studies in the fields of Community Planning, Transportation Planning, Comprehensive Health Planning, Solid Waste Management and the Preservation of Historical Resources; presently employed as Assistant Planning Director by the City of Brampton; previous employment; Officer, Halton County Board of Education; Long Range Planner, Town of Oakville; Aviation Systems Planner, Government of Canada; has been involved in major studies in Agricultural Rehabilitation in the Eastern Townships of Quebec; Impact of Urbanization in the St. Lawrence Lowlands, and Population Trends in New England; prior to becoming involved in planning, was in Financial, Personnel, Property, and Systems Management with the Government, Armed Forces and Industry.

HIDAKA, Kunio, on behalf of The Town of Whitchurch-Stouffville

Address: 4 Lansing Square, Suite 221, Willowdale, Ontario. M2J 1T1

Qualifications: Town and regional planning consultant since 1952.

HODGE, Gerald, on behalf of The City of Toronto

Address: Queen's University, Kingston, Ontario.

Qualifications: Educated at the Massachusetts Institute of Technology, received a Ph.D. in Regional Planning; has had 14 years experience in urban and regional planning including consultation to the Puerto Rico Industrial Development Company, the Province of Nova Scotia, the Province of Prince Edward Island, the Province of Ontario and the Government of Canada; has lectured at various universities for the past 14 years, including the University of British Columbia, Massachusetts Institute of Technology, University of Toronto and Queen's University.

HOMENUCK, H.M.P. on behalf of the City of Toronto.

Qualifications: Faculty of York University, Toronto.

HUMBERLEA COMMUNITY ASSOCIATION

see: Jackes, William

JACKES, William, on behalf of Humberlea Community Association

Qualifications: A member of the Executive of the Humberlea Community Association.



JACKSON, Ronald G., on behalf of deHavilland Aircraft of Canada, Limited.

Qualifications: Employed by the deHavilland Aircraft Company as Project Engineer from 1954-62; presently involved in the project engineering development and production of the DHC-7.

KETTLE, John, on behalf of The City of Toronto

Address: 12 Selwood Ave., Toronto, Ontario M4E 1B2

Qualifications: Educated in Felsted School, Essex, England; started writing as a journalist about the future in 1966, and has written numerous articles on futurism which have been published in The Bell Telephone Magazine (New York), Executive, Monetary Times, Stimulus, etc; has also written a book called Footnotes on the Future (Toronto: Methuen, 1970); a consultant for ten television programs on the future in 1968-1969 ("Telescope", CBC-TV); a consultant to various industries and government departments on aspects of futurism and the future; these include American Telephone and Telegraph, Bell Canada, G.S.W. Ltd., Imperial Oil, Labatts, The Royal Bank of Canada, Stelco and The Public Service Commission; a consultant to the Hudson Institute, Croton-on-Hudson, New York, and has held this position since 1970; has given seminars on futurism and the future for the Public Service Commission's Career Assignment Program and Senior Management Development Courses since 1970.

LATTA, Martha Graves

Address: Division of Social Sciences, Scarborough College, University of Toronto, West Hill, Ontario M1C 1A4

Qualifications: Lecturer in Anthropology for Scarborough College, University of Toronto; for the past two years has been involved in the excavation of a large Indian village site located on the Eighth Concession, the Altona Sideroad, the Draper farm, which is known as the Draper site; has been involved in running field courses for university students.

LEWIS, Paul, on behalf of Society for Aircraft Noise Abatement

Address: Renforth Drive, Etobicoke, Ontario.

Qualifications: President of the Society for Aircraft Noise Abatement, and has held this position since September 1968.

LIBERAL MEMBERS OF THE PROVINCIAL LEGISLATURE  
OF ONTARIO, THE CAUCUS OF

see: Deacon, Donald.

MACLEAN, Gary B., on behalf of The Rexdale Citizens' Group,  
1974

Address: 3 Pergola Road, Rexdale, Ontario.

Qualifications: A member of the Executive of the Rexdale Citizens' Group, 1974.

MACMILLAN, Dr. Donald Angus

Qualifications: Mayor of the Town of Thorold, one of the municipalities that form The Regional Municipality of Niagara.

MARKHAM, Town of 8911 Don Mills Road, Markham, Ontario  
L3R 1A1

see: Paterson, Donald M. Winter, John O.

MCINTYRE, Robert, B., on behalf of deHavilland Aircraft of  
Canada, Limited.

Qualifications: A graduate of the University of Toronto, Honours in Mechanical Engineering, 1936; upon earning a Massey Fellowship, proceeded to Cambridge where post graduate studies in aeronautics and aerodynamics under Sir Wilfred Jones; returned to Canada and assisted in the establishment of the aeronautical engineering course at the University of Toronto and lectured there in aerodynamics and airplane design; joined industry and from approximately 1943 through to the present, has been with the deHavilland Aircraft of Canada, Limited; through a series of positions, has been involved with all the airplanes which deHavilland Aircraft of Canada, Limited has developed and produced from the DHC1 Chipmunk to the new DHC-7 STOL Aircraft; currently Director of Marketing Development for deHavilland Aircraft of Canada, Limited.

MISSISSAUGA, Corporation of the City of

see: 8Waite, William D.

Address: 1 City Centre Drive, Mississauga, Ontario

Submission signed by: D.R. Turcotte, A.M.C.T.

MORROW, Vern

Address: R.R. No. 3, Stouffville, Ontario.

MUIRHEAD, Clark T., on behalf of People or Planes

Address: R.R., Ashburn, Ontario.

Qualifications: A Professional Engineer..

**NEW AIRPORT NOW**

see: Bickley, John

**NIAGARA, THE REGIONAL MUNICIPALITY OF**

see: MacMillan, Dr. D.A. and  
Eidt, C.H.

Address: Public Works Department, 150 Berryman Avenue, Box 504, St. Catharines, Ontario. L2R 6V9

**ONTARIO AVIATION COUNCIL**

see: Pentland, W.T.

Address: P.O. Box 200, Toronto-Dominion Centre, Toronto, Ontario. M5K 1J2

**ONTARIO AVIATION ENTHUSIASTS' SOCIETY**

see: VI0,8Dunn, Brian

OSLER, Sanford L., on behalf of Pollution Probe

Address: Energy and Resources Team, Pollution Probe, University of Toronto, Toronto Ontario. M5S 1A1

Qualifications: A B.A. in Economics from the University of Toronto, and 2½ years of experience with the Energy and Resources Team at Pollution Probe.

PATERSON, Donald M., B.A., M.A. (Econ.), Dip. Town and Regional Planning, M.T.P.I.C., on behalf of The Town of Markham

Address: 2642 Eglinton Avenue East, Scarborough, Ontario. M1K 2S3

Qualifications: President of Paterson Planning and Research Ltd; degree in Political Science and Economics, and a diploma in Town and Regional Planning from the University of Toronto; over 20 years' experience, including service as Secretary to the Malton Area Planning Board, and as Head of the Research Division of The Metropolitan Toronto Planning Board, with a planning area which comprised both the Malton and Pickering Airport sites; a member of the Metropolitan Toronto Planning Board from 1953 to 1964; since 1966, a consultant in private practice and is presently doing consultant work for the Town of Markham.

PAYNE, Brian David

Address: R.R. No. 2, Claremont, Ontario.

PENTLAND, William Thomas

Qualifications: A member of the Executive of the Ontario Aviation Council, and an architect.

**PEOPLE OR PLANES**

see 1Almack, Lorne D.

Crothers, William F.

Fallis, Kenneth E.

Godfrey, Dr. C.M.

Muirhead, Clark T.

Thompson, Victor Albert

Winterhalt, William Howard.

**PICKERING, Corporation of the Town of**

see: Willis, Derek

Address: 1710 Kingston Road, Pickering, Ontario. L1V 1C7

**PICKERING, Ward I of the Town of**

see: Searle, Bruce R.

**POLLUTION PROBE**

see: Osler, Sanford

Address: Pollution Probe, University of Toronto, Toronto, Ontario. M5Z 1A1

**PRESBYTERY OF EAST TORONTO**

see: Warne, D.M.

**RATCLIFF, Gordon**

Address: R.R. No. 2, Stouffville, Ontario.

Qualifications: An elected municipal official for a number of years; Mayor of the Town of Whitchurch-Stouffville; a member of the Council of The Regional Municipality of York, and Chief Executive Officer of the Town of Whitchurch-Stouffville.

**REXDALE CITIZENS' GROUP, 1974**

see: MacLean, Gary B.

**RIBNER, Herbert Spencer, on behalf of deHavilland Aircraft of Canada, Limited.**

Qualifications: Involved in research and teaching relating to aircraft noise for the past twenty years at the University of Toronto; has written a number of articles connected with aircraft noise, and belongs to a number of associations which have conducted studies of the subject. An early version of the computer programme for NEF contours adopted and modified by the Ministry of Transport, Canada, was developed at the University of Toronto under Dr. Ribner's supervision.

*Airport Inquiry Commission Report*

**RICHARDS, Dr. Norval Richard, P. Ag.**

Address: Department of Land Resource Science, Ontario Agricultural College, University of Guelph, Guelph, Ontario.

Qualifications: A graduate of the Ontario Agricultural College; graduate work in soil science at Michigan State University; with the Canada Department of Agriculture in Soil Classification and Land Use from 1938 to 1952; Professor of Soil Science, Ontario Agricultural College, 1952 to 1962; Dean of the Ontario Agricultural College from 1962 to 1972; and Professor of Land Resources Science 1972 to the present. President of the Agricultural Institute of Canada.

**RICHARDSON, Dr. Douglas**

Qualifications: Studied at the University of Toronto, University of London, and Yale University taking a Ph.D. in Architectural History at Yale University; was a member of the staff of the University of Toronto; is a Director of the Society of Architectural Historians, and was involved with the architectural evaluation carried out for the Federal and Provincial Governments of the combined airport and North Pickering project sites.

**RITCHIE, David W.**

Address: R.R. No. 1, Markham, Ontario.

Qualifications: Manager of Corporate Quality Control for Philips Electronics Industries Limited.

**ROBERTSON, Dianne**

Address: R.R. No. 1 Locust Hill, Ontario.

**ROBINSON, Thelma**

Address: Green River, Ontario.

**SALVERSON, Sandra**

Address: Box 43, Whitevale, Ontario L0H 1M0

**SALVERSON, Scott**

Address: Box 43, Whitevale, Ontario L0H 1M0

**SEARLE, Bruce R., B.P.H.E.,** on behalf of Ward I of the Town of Pickering and on his behalf

Address: 799 Oliva St., Fairport Beach, Pickering, Ontario.

Qualifications: Area Councillor, Ward I, Town of Pickering, for the term 1974-1976.

**SEARLE, Margaret Virginia**

Address: 799 Oliva St., Fairport Beach, Pickering, Ontario.

**SHAVER, Paul D.**

Qualifications: Holds degrees in architecture and engineering; has



had 20 years' experience in relation to airport planning transportation and operations; for the past year has been Director of Planning at the Department of Aviation of the City of Chicago; previously, an architectural consultant with C.F. Murphy and Associates in the City of Chicago.

SIMPSON, Robert Warren, on behalf of deHavilland Aircraft of Canada, Limited.

Qualifications: Director of the Flight Transportation Laboratory at the Massachusetts Institute of Technology and Professor of Aeronautical Engineering at MIT.

SOCIETY FOR AIRCRAFT NOISE ABATEMENT

see: Etherington, Virginia  
Lewis, Paul F.

Address: 39 Toledo Road, Etobicoke, Ontario M9C 2H4  
SPIECE, Eva

Address: R.R. No. 3, Stouffville, Ontario.  
STIVER, Allan W.

Address: 10 Wootten Way, Markham, Ontario.

Qualifications: Manager of Canadian Petroleum Limited, and has had 10 years experience in matters related to Canada's oil and gas industry.

STRATFORD, H. Ralph

Address: 337 Fairview Drive, Whitby, Ontario.

Qualifications: An Associate Fellow of the Royal Aeronautical Society, an Associate Fellow of the Canadian Aeronautics and Space Institute, and a member of the Association of Professional Engineers of Ontario; has derived his livelihood from aviation for 35 years; 1939-46 was with the R.A.F.; since 1946 has been on the design side of the industry, largely specializing in landing gears; is presently employed by deHavilland Aircraft of Canada, Limited.

SULLIVAN, Thomas M.

Address: Dallas, Texas.

Qualifications: A graduate in engineering and architecture from Oklahoma State University. Upon graduating, he was employed by Trans World Airlines as project engineer for airport and airport building design, rose to the position of Director of International Properties and Assistant Secretary to the Corporation. Later employed by the Port of New York Authority where he was responsible for the design and development of La Guardia and John F.

Kennedy Airports and for the preliminary design of the Newark Airport; awarded the Distinguished Service Medal by the Port of New York Authority for the design Terminal City at John F. Kennedy Airport; became First Deputy Director of Aviation for the Port of New York Authority. Retired from the Authority in 1968, to become Executive Director of the Dallas/Fort Worth Airport Board; in May, 1974, retired from the Board and is now Vice-President of Landrum and Brown, Airport Design Consultants. In 1970, was appointed by the President of the United States as one of the nine Commissioners of the Aviation Advisory Commission. The responsibility of this commission was to formulate recommendations concerning the long-range needs of aviation and the development of a national airport system plan for recommendation to the President and to Congress; has served as consultant for the development of a number of airports, including the Oakland and Tampa Airports in the United States, as well as airports in Puerto Rico, Zurich, Switzerland, Paris and London.

THOMPSON, Isobel

Address: Box 25, Whitevale, Ontario. L0H 1M0

THOMPSON, Victor Albert, on behalf of People or Planes

Address: Box 25, Whitevale, Ontario. L0H 1M0

TINTI, Mrs. Alva

Address: 117 Stafford Road, Willowdale, Ontario. M2R 1V5

TOPLIS, Arthur F., on behalf of deHavilland Aircraft of Canada, Limited.

Address: A B.Sc. from London University, Master of Business Administration from York University, and presently head of the operations of the analysis group at deHavilland Aircraft of Canada, Limited.

TORONTO, The City of

see: Day, Lawrence, H.

Diamond, A.J.

Duggan, John

Ellis, J.B.

Hodge, Gerald

Homenuck, H.M.P.

Kettle, J.

Voss, Dr. Gunther.

TRUMAN, Robert S., on behalf of The Corporation of the Borough of Etobicoke

Address: Planning Dept., Borough of Etobicoke 550 Burnhamthorpe Road, Etobicoke, Ontario.

Qualifications: B.A. in History from Wayne State in Detroit, M.A. in Urban Planning from the same university; six years' municipal experience; since 1972, employed by the Planning Department, Borough of Etobicoke, as a principal planner in the Long Range Division,

VOSS, Dr. Gunther for the City of Toronto.

Address: P.O. Box 280, West Hill, Ontario. M1E 4R5

Qualifications: Doctorate in natural history at Kiel University in 1951; has been Director of Krefeld Zoo in West Germany and the Assiniboine Park Zoo in Winnipeg; was President of the American Association of Zoological Parks and Aquariums; since 1970 Director of the Metropolitan Toronto Zoo.

WADE, Dr. John Henry Terry

Address: McMaster University, Hamilton, Ontario.

Qualifications: Master of Science degree from the then Institute of Aerophysics at the University of Toronto following his discharge from the RCAF; Ph.D. from the Institute for Aerospace Studies, University of Toronto, in 1955, joined Orenda Engines Limited as a specialist in Aerodynamics. In 1959, joined the faculty of McMaster University where he is presently a professor of engineering; has written many publications dealing with various aspects of aerodynamics. A Fellow of the Canadian Aeronautics and Space Institute, an Associate Fellow of the American Institute of Aeronautics and Astronautics, a member of the National Research Council Subcommittee on Internal Dynamics, of which he was chairman from 1968-72; in 1973 was awarded the Sons of Martha Medal from the Association of Professional Engineers of Ontario.

WAITE, William David, on behalf of The Corporation of the City of Mississauga

Qualifications: Graduated in Political Science from the University of Western Ontario in 1965; obtained a Master of Arts in Political Science from the University of Western Ontario in 1966, and a Master of Science in Urban Regional Planning from the University of Toronto in 1969; for a time was a Planner with Project Planning Consultants, and was later employed by the Town of Mississauga,

Planning Department, as a Planner from 1969 to 1971; was then engaged by the Community Planning Branch, Department of Municipal Affairs from September 1971 to June 1972 as a Planner; returned to Mississauga in June 1972 as Senior Planner, Research Section, for the City of Mississauga, and has held this position to date;

WANSTALL, Anne

Address: R.R. No. 2, Claremont, Ontario.

Qualifications: Eight years as food and consumer editor of the Toronto Star; formerly had held the same position for the Canadian Magazine, as well as for the Globe and Mail; now consumer writer for Metrospan Newspapers, and researcher and hostess of the nutrition programme produced by the Ontario Educational Communications Authority; the author of several papers concerning food and food production, loss of agricultural land, and growth of urban sprawl.

WARD, M.W.

Address: Toronto, Ontario

Qualifications: The President of Wardair, Canada Limited.

WARNE, D.M. on behalf of The Presbytery of East Toronto

Address: 400 Fairview Drive, Whitby, Ontario.

WHITCHURCH-STOUFFVILLE, The Town of

see Harris, Andrew S.

Hidaka, Kunio

Ratcliff, Gordon

WHITING, Richard Benson, on behalf of deHavilland Aircraft of Canada, Limited.

Qualifications: A former Air Commodore, Canada; a graduate in Applied Science from the University of British Columbia; an Engineering Officer for the Royal Canadian Air Force from 1940 to 1952; from 1952 to 1955 was International Engineering Officer, seconded from the R.C.A.F. to the NATO international staff; Chief Construction Engineer for the R.C.A.F. from 1955 to 1963, and from 1963 to 1966 Chief Construction Engineer Integrated Canadian Forces; from 1966 to 1968, Assistant Deputy Minister of Program and Planning for the Department of Public Works, Government of Canada.

WILEY, Arthur T.

Address: Montreal, Quebec.

Qualifications: The Director of Marketing Intelligence, Air Canada.

WILEY, John R. on behalf of deHavilland Aircraft of Canada, Limited.

Qualifications: The Director of Aviation for the Port of New York Authority from 1955 to 1972; responsible for the planning, development, operation and maintenance of the four airports serving the Metropolitan New York area; Past President of the Airport Operators Council International, and Past Chairman of the International Board of Directors of the ICAO; an Assistant Fellow of the American Institute of Aeronautics and Astronautics; a Professor of Aeronautics and Astronautics; a Principal, Flight Transportation Associates in Burlington, Massachusetts; and Professor, Flight Transportation Laboratory, at the Massachusetts Institute of Technology.

WILLIS, R. Derek, M.T.P.I.C.

Address: Director of Planning, Town of Pickering, 1710 Kingston Road, Pickering, Ontario.

Qualifications: A member of the Town Planning Institute of Canada and the Association of Ontario Land Economists; engaged as a Planner from 1943 to 1950, with the exception of time spent in military service with the Gloucester County Council; in 1954 was employed by Don Mills Development Ltd. as a Planning Technician; in 1955 was with the Township of North York as an intermediate Planner; from 1956 to 1972, employed by the Township and the Borough of Scarborough; from 1956 to 1964 as Chief Planner and 1965 to 1972 as Commissioner of Planning; from 1972 to 1973, was Planning Director for the Township of Pickering; presently Planning Director for the Town of Pickering.

WINTER, John O., Ph.D. (Urban Geography) on behalf of The Town of Markham.

Address: Paterson Planning and Research Ltd., 2642 Eglinton Ave. E., Scarborough, Ontario. M1K 2S3

Qualifications: An urban planning consultant; Ph.D.; has taught Urban Geography and Planning at Ryerson Polytechnical Institute and Laurentian University.

WINTERHALT, William Howard, on behalf of People or Planes

Address: Lot 20, Concession 7, General Delivery, Brougham, Ontario.



Qualifications: A Bachelor of (Civil) Engineering, and a Master of Science in Planning obtained in November 1973; employed part-time by the City of Oshawa on two separate occasions — in the summer of 1972 for 5 months and in late 1973-1974 for 6 months; became fully employed as a planner with the City of Oshawa, on April 1, 1974.

WONG, Ho-Kwan

Qualifications: B.Sc. in 1968 from the University of Hong Kong, M.Sc. in 1971 from M.I.T., and Civil Engineer's Degree in February 1973 from M.I.T.; published many papers in the field of urban transportation; June 1971 to August 1973 was engaged with Fay, Spofford and Thorndike Inc. in Boston; since that time has been with the Toronto Area Airports Project Team as a Transportation Systems Analyst.

WOODS, L.

Qualifications: B.A.Sc., University of Waterloo; employed 1973 to present P.M.L.P. Consultants Ltd.; 1972-73 S.W.R. Consultants Ltd.

**(2) WITNESSES WHO FILED EVIDENCE  
STATEMENTS BUT DID NOT GIVE ORAL  
TESTIMONY**

ALMACK, Robert G.	DEACON, Betty
ANDREWS, Mrs. Barbara	DEACON, John H.
ANDREWS, Brian	DEONARAINÉ, H.
ANDREWS, Margaret	DE VISSER, F.
AUSTIN, Eva	DURHAM, The Regional Municipality of
AVERY, W.	EDWARDS, Mrs. M.E.
BALL, A.W.	EDWARDS, Ms. Shirley
BALL, Mrs. Eileen	FAIR, Michael A., M.D.
BARCLAY, Mrs. L.T.	FLEMING, William R.
BEACH, Donald	FREY, Albert C., B. Comm.
BEE, John	GOEBEL, M.
BEST, Mrs. R.A.	GOSTICK, Fred
BILLINGHAM, Howard F.	GOSTICK, Hattie
BLEASDALE, Bennett	GOURLEY, Fiona
BODE, I.	GREAVES, Harold
BOLTON, Miss J.	GREEN, Max E.
BOLTON, Mr. and Mrs. J.	GREENE, Mrs.
BRADLEY, William	GREEN RIVER Baptist Church
BRAID, Reginald and Lorna	GREEN RIVER Residents' Association
BRANGERS, E.	GREENWOOD AREA Ratepayers' Association
BRANGERS, Shirley	GREER, Faye E.
BROWN, Christine	GREER, George
BRYANT, Rotha	HANSEN, Mr. and Mrs. R.
BRYANT, Roy	HARPER, W.T.L.
BUDDEN, Sandra	HARTSHORNE, Mrs. H.T.
BYREN, Mrs. B.	HASENECKER, J.P.
CARROD, Stephen	HAY, Miss J.
CARROD, Sylvia	HEARD, Mrs. B.
CARTWRIGHT, Mrs. I.	HIGGINS, J.
CLARKE, Barry E.	HILLER, Mrs. S.
COLLINS, Vernon	HOLDER, P.
CONN-HUGHES, Barry	HOWES, A.V.D.
COTE, John	
CULP, Teddy	
DANSON, Barney, M.P.	
DAWSON, Miss A.D.	

HOWIE, W. Arthur  
HUTCHINSON, D. and P.  
ISBISTER, Alex J.  
KELLY, Don  
LEE, Mrs. Jean  
LEE, R.W.  
LIVINGSTON, John  
LONG, G.F.L.  
LOWNDES, Mr. and Mrs.  
    G.H.  
MACMILLAN, John  
MANZIE, Mrs. E.  
MASTERS, A.J.  
McCANDLESS, D.  
MCCLENNAN, C.  
MCCLENNAN, D.  
MCCLENNAN, P.  
MCCOWAN, E.A.  
MCINTOSH, Miss K.  
MCLAURIN, Lois  
MENDEZI, W.  
METROPOLITAN TORONTO  
    Evangelical Christian Centre  
MINASSIAN, Sonia  
MITCHELL, Mrs. J.  
MITCHELL, W.  
MITCHELL, Y.  
MOHR, Doerchen  
MOORE, Terrence M.  
MORAN, E.  
MORLOCK, Harold D.  
NORTHERN ELECTRIC  
    Company Limited  
OAKVILLE, The Corporation  
    of the Town of  
OATES, G.L.  
ORZECOWSKI, Jerzy  
OUTHOUSE, Mrs. Jean  
OUTHOUSE, Stanley  
PARDHAN, M.H.  
PARKEY, L.E.  
PEGG, Milton N.  
PEGGE, Charles E.  
PILKINGTON, Mrs. Christina  
RAMDEO, S.  
ROBINSON, Lloyd  
ROGERS, Garry Robert  
ROGERS, H.L.  
ROTTENBURG, R.E.  
SALTER, J. Peter  
SCOTT, Mrs. H.  
SCOWN, Bertha  
SEVERBYEVERS, S.  
SHERWOOD, Mildred  
SPEARMAN, Mrs. H.  
SPRATLEY, K.B.  
STAPLEFORD, E.M.  
STEIMANN, Mrs.  
STRADER, Mr. and Mrs. K.  
TAIT, Albert and Florence  
TAIT, Mr. and Mrs. Edward H.  
TAYLOR, Mr. and Mrs. A.E.  
TECHNICAL OFFICE  
    PROFESSIONAL, Local  
    1535  
TURKO, William  
UNITED ELECTRICAL,  
    RADIO AND MACHINE  
    WORKERS OF AMERICA,  
    Local 531  
UNITED ELECTRICAL  
    WORKERS OF AMERICA,  
    Local 531  
VOICE OF WOMEN  
WHITAKER, Mrs. Mary  
WHITCHURCH -  
    STOUFFVILLE  
    RATEPAYERS' ASSN.

WHITE, Leonard  
WIESER, E.

WIESER, Mrs.

*Airport Inquiry Commission Report*

ALMACK, Robert G.

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Qualifications: graduated in  
1974 with a B.Sc. in Honours  
Biology.

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ANDREWS, Margaret

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BARCLAY, Mrs. L.T.

Address: The Mill,  
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Greenwood,  
Ontario.

BEACH, Donald

Address: Greenwood,  
Ontario.

Qualifications: Partner with  
Coopers & Lybrand, Chartered  
Accountants, 145 King St. W.,  
Toronto

BEE, John

Address: 341 Bloor St. W.,  
Toronto, Ontario.

BEST, Mrs. R.A.

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Address: 505 Kingston Rd.,  
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BLEASDALE, Bennett

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Ontario.

BODE, I.

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Locust Hill,  
Ontario.

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BRYANT, Rotha

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Qualifications: A freelance  
writer, and author of: *The  
Movable Airport*, Hakkert;  
Toronto; 1973.

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Ratepayers' Association  
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GREER, George

Address: Coboconk,

Ontario.

HANSEN, Mr. and Mrs. R.

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Ontario.

HARPER, W.T.L.

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Ontario.

HASENECKER, J.P.

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Foundry,

Division of Communication

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ISBISTER, Alex J., M.S.W.

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marriage counsellor, employed

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KELLY, Don

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LIVINGSTON, John

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Qualifications: Membership

Secretary for The Metropolitan

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Markham,

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MCCLENNAN, P.

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authoress of Ladies Please

Provide (1967)

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Submission signed by: Rev.

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MOHR, Doerchen

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Qualifications: Judge of the  
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Submission signed by: Mr.  
Elliott Turcot.

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of the Town of

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Submission signed by: D.W.  
Vickery.

OATES, G.L.

Address: R.R. #4,  
STOUFFVILLE, Ontario.

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aeronautical engineer with  
experience in the field of  
aeronautics; a member of the  
Professional Engineers of

Ontario; a member of the  
Canada Aeronautics and Space  
Institute; a member of the  
Canada Society by Mechanical  
Engineers; a Chartered  
Engineer; and a member of the  
Institution of Mechanical  
Engineers; has his current  
pilot's licence with multi-  
engine endorsement, previously  
instrument rated; has had 22  
years experience in the  
Aerospace Industry.

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with 24 years flying experience;  
works at Toronto International  
Airport, Malton.

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OUTHOUSE, Stanley

Address: Greenwood,  
Ontario.

PARDHAN, M.H.

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Claremont,  
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PEGG, Milton N.

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Qualifications: Chairman of the Historical Research Committee for the book *Greenwood Through the Years*.

PEGGE, Charles E.

Address: R.R. #2,  
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Systems Analyst with Gulf Oil  
Canada Ltd.

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SALTER, J. Peter

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Ontario.

SCOTT, Mrs. H.

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SCOWN, Bertha

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SPRATLEY, K.B.

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1974-76 term.

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Submission signed by: D.R.  
Monie.

UNITED ELECTRICAL  
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Submission signed by: Elliott  
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WIESER, Mrs.  
Address: R.R. # 1,  
Locust Hill,  
Ontario.

**LIST OF WITNESSES AND QUALIFICATIONS AND  
LIST OF PERSONS INTERVIEWED WHO ARE  
ACTIVELY ENGAGED IN THE AIR  
TRANSPORTATION INDUSTRY.**

**LIST OF CERTAIN PERSONS INTERVIEWED WHO  
ARE ACTIVELY ENGAGED IN THE AIR  
TRANSPORTATION INDUSTRY.**

**UNITED STATES**

Banerian, G.  
Acting Chief, Plans and  
Programs Division, Office of  
Noise Abatement, Department  
of Transport, U.S.A.  
Browne, S.  
President Secor D. Browne  
Assoc., Inc.  
Chavkin, J.M.  
Deputy Director, Quiet Short-  
Haul Air Transportation  
System Office, Federal Aviation  
Administration  
Davidson, R.  
Deputy General Manager,  
Airport Operations,  
Department of Airports, Los  
Angeles International Airport.  
Dwyer, W.J.  
Director of Airports, City and  
County of San Francisco  
Airport Commission  
Fearn, D.  
Deputy Director of Planning,  
City and County of San  
Francisco Airport Commission  
Foster, J.A.  
Director, Aviation Department,  
Houston Intercontinental  
Airport.  
Link, L.  
Assistant Regional Director,  
Federal Aviation

Administration, Los Angeles  
Region.  
Lockwood, B.  
Assistant General Manager —  
Operations, Department of  
Airports, Los Angeles  
International Airport.  
Medeiros, A.A.  
Manager, Refan Project Office,  
NASA  
Ochsner, Donald J.  
Supervisor, Airtrans, Dallas/  
Fort Worth Airport.  
Pearson, James  
Deputy City Attorney General,  
Department of Airports, Los  
Angeles International Airport.  
Rack, K.  
Administrative Assistant to the  
Deputy General Manager,  
Department of Airports, Los  
Angeles International Airport.  
Sganga, M.J.  
Planning Director of Dallas/  
Fort Worth Airport.  
Smethers, R.G.  
Research and Design Engineer,  
Staff, Lockheed — Georgia Co.  
Stitt, L.E.  
Aerospace Engineer, NASA.  
Wesler, J.E.  
Chief, Regulatory Policy and  
Standards Division, Office of

Noise Abatement, Department  
of Transport, U.S.A.  
Willis, C.A.  
Manager, Planning, Dallas/  
Fort Worth Airport.

Woodall, J.F.  
Chief, Aircraft Safety and  
Noise Abatement Division,  
Federal Aviation  
Administration.

## **LONDON, ENGLAND**

British Airports Authority:  
Turner, D.W.  
Planning Director.  
Thompson, H.V.L.  
Deputy Planning Director (F).  
Champniss, G.A.  
Inspector of Airside Safety &  
Operations  
Hurst, David  
Traffic Forecast  
Whitford, Percy

Deputy Director, Heathrow  
Airport  
Cooke-Smith, Tony  
Chief, Airside Safety, Heathrow  
Airport  
Maine, M.P.  
General Manager Passenger  
Services, Heathrow Airport  
Durrant, J.P.  
Manager Terminal I, Heathrow  
Airport

## **PARIS, FRANCE**

### **Aéroport de Paris:**

Dreyfus, Gilbert,  
Directeur General.  
Maurel, Roger  
Chief Engineer, Direction of  
Operations  
Lelong, Michel,  
Engineer in charge of technical  
relations, Paris Airport

Authority, Public Relations  
Department.  
Albouy, Jean-Claude  
Engineer of Bridges &  
Causeways, Engineering Chief  
of the Department of  
Infrastructure & Civil  
Engineering.

### **Charles de Gaulle Airport:**

Brot, Etienne  
Director of Public Relations.



**BERLIN**

Laudien, Dr. Wolfgang  
Director of the Berliner  
Flughafen (2) Airports  
Tempelhof and Tegel

Kranz, Hans-Joachim  
Traffic Manager, Airports  
Tempelhof and Tegel  
Nawra, Wolfgang, Dipl.-Ing.  
Prokurist

**ROME**

Casagrande, Raffaele  
Dirigente Superiore, Direttore  
del l'Aeroporto Leonardo da  
Vinci Fiumicino



APPENDIX 6

QUESTIONS IN ORDER IN COUNCIL P.C.  
1973-3026

AND THE CORRESPONDING QUESTIONS IN  
THE  
COMMISSION'S SCHEDULE OF HEARINGS

In this Appendix is set out the evidence adduced at the Public Hearings of the Commission broken down into two broad categories, namely, (1) evidence categorized as "Old" and introduced by the Government of Canada (that is evidence in existence at January 30, 1973); and (2) "Other" evidence which consists of evidence adduced not only by the Government of Canada, but the evidence of all other witnesses and the documentary evidence.

As noted in the text of Chapter III, in respect to the questions posed in *Order in Council* P.C. 1973-3026, in each category, the Commission, for the purpose of its hearings, prescribed them in its Schedule of Hearings divided into what it called "Phase I" and "Phase II" questions.

In this appendix, in relation to each of the "Phase I" and "Phase II" questions, there is set out (1) the "Old" evidence above described, and (2) the "Other" evidence.

Also at the commencement of this Appendix is set out the questions in *Order in Council* P.C. 1973-3026 and the corresponding questions in the Commission's Schedule of Hearings. Thereafter, *seriatum* are set out in relation to each of the said questions (1) the references to the "Old" evidence, and (2) the references to the "Other" evidence.

## QUESTIONS IN ORDER IN COUNCIL P.C. 1973-3026 AND THE CORRESPONDING QUESTIONS IN THE COMMISSION'S SCHEDULE OF HEARINGS

<i>Order in Council</i>	Schedule of Hearings
1. (a) (i)	Phase I, Question 3A (1)-(3)
1. (a) (ii)	Phase I, Question 1 (1)-(4)
1. (b) (i)	Phase I, Question 2 (1)
1. (b) (ii)	Phase I, Question 3B (1)
1. (b) (iii)	Phase I, Question 2 (2)
1. (b) (iv)	Phase I, Question 2 (3)
1. (b) (v)	Phase I, Question 3B (2)
1. (c)	Phase I, Question 4 (1)
2. (a)	Phase II, Question 1 (1)
2. (b)	Phase II, Question 1 (2)
2. (c)	Phase II, Question 1 (3)
2. (d)	Phase II, Question 1 (4)
2. (e)	Phase II, Question 1 (5)
2. (f) (i)	Phase II, Question 2 (1)
2. (f) (ii)	Phase II, Question 2 (2)
2. (g)	Phase II, Question 2 (3)
1. Evidence relating to Question 1. (a) (i) in the <i>Order in Council</i> P.C. 1973-3026 which was categorized as Phase 1, Question 3A (1)-(3) by the Commission in its Schedule of Hearings.	
A. "Old" evidence (being Exhibits 3, 108, 5, 6 and 7 of the Airport Inquiry Commission).	
(a) <b>Exhibit 3</b> (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).	
Tab 1.1 Master Plan for Toronto International Airport — Prepared for: The Department of Transport, Ottawa, Canada by John B. Parkin Associates, Architects and Engineers — November, 1967.	
Tab 1.2 Summary Document prepared by Ministry of Transport for Information Purposes — December, 1968.	
Tab 1.3 Outline Conceptual Plan, Toronto International Airport — 1969.	
Tab 1.5 Progress Report on Expansion of Major Airport	

Facilities in the Toronto Region — Department of Transport — May 30, 1969.

Tab 1.8 Toronto Airport Planning Position Paper Toronto Airport Planning Team (APY), Canadian Air Transportation Administration, Ministry of Transport — May, 1970.

Tab 1.9 Toronto Airport Planning — Position Paper Toronto Airport Planning Team (APY), Canadian Air Transportation Administration, Ministry of Transport, August, 1970.

Tab 1.10 Letter to Mr. D.R. Hemming, Director Planning & Research, Air, Department of Transport — from Hans Blumenfeld, Planning Consultant, Toronto, dated August 17, 1970. (Review of August 1970 position paper).

Tab 1.11 Second Toronto Airport, Site Evaluation — Technical Report — Toronto Airport Planning Team, Canadian Air Transportation Administration, Ministry of Transport — September 1970.

Tab 1.16 Tap System Analysis — February 1971 (Summary of steps in ongoing work on the aviation plan).

Tab 1.17 An Evaluation of the Impact of STOL on the Toronto Area Airport System — Toronto Airports Project — April 1971.

Tab 1.19 Air Passenger Distribution and Airport Assignment Study — June 1971.

Tab 1.23 Toronto Area Aviation Systems — Progress Report — September 14, 1971.

Tab 1.24 Passenger Distribution and Airport Assignment Study — Stage 1 of Phase II — January 1972.

Tab 1.27 Toronto Area Aviation System: Presentation — January 28, 1972.

Tab 2.1 Passenger and Cargo Forecasts including Methodology — April 21, 1972.

Tab 2.2 Forecasting and the New Toronto Airport — June 30, 1972.

Tab 2.3 Aircraft Movement Forecasts and the New Toronto Airport — May 31, 1972.



Tab 2.4 Air Transportation Statistics — Forecasts: Air Traffic Movements, Passengers, Cargo — December 1969.

Tab 2.5 Air Statistics and Forecasts to be used by the Toronto Airport Planning Team — 1970.

Tab 2.6 Review and Update of Existing Air Traffic Forecasts — March 1971.

Tab 2.7 Revised Air Traffic Forecasts for the Toronto Region — May 1971.

Tab 2.8 O. and D. Statistics and Forecasts for Toronto Airport — February 1971.

Tab 2.9 Revised Aircraft Movement Forecasts — November 1971.

Tab 2.10 A Comprehensive Survey of Passengers Flying from Toronto International Airport — May — June 1968.

Tab 2.11 Ground Transportation Travel Surveys — August 1969.

Tab 2.12 Malton Survey and Measurement Project — January 1972.

Tab 2.13 Air Passenger Forecasts — January 1972.

Tab 3.1 A Framework for Air Cargo Forecasting, Toronto Region, 1970-2000, November 1971.

Tab 3.2 Air Cargo Forecasts: The Toronto Region, 1970-2000, April 1972.

Tab 5.1 General Aviation in Toronto and the New Toronto Airport — June 29, 1972.

Tab 5.2 A study of General Aviation in the Toronto Area — December 1968.

Tab 5.4 General Aviation Inventory — June 1970.

Tab 6.1 Congressional Air Transportation Congestion Study — January 1971.

Tab 6.2 Air Charter Operations and Airport Congestion — September 1970.

Tab 6.3 Air Charter Operations and Terminal Congestion — November 1970.

Tab 6.4 Terminal Congestion at Toronto International Airport — December 1971.

Tab 11.1 The Impact of STOL on the Toronto Area Airports System — July 11, 1972.

Tab 11.3 STOL Aircraft Future Trends — May 1971.

Tab 11.8 Canada's STOL Program — a Progress Report with attachment October 1971.

Tab 13.38 A Study of Commercial Air Traffic in the Toronto Region in Regard to a Proposed Two-Airport System — July 1969.

- (b) **Exhibit 108** (of the Airport Inquiry Commission) being Provincial Document IV — Regional Impact of the New Toronto International Airport (The Hodge Report).
- (c) **Exhibit 5** (of the Airport Inquiry Commission) being verbatim testimony before J.W. Swackhamer, Q.C., document HT I to HT XII.
- (d) **Exhibit 6** (of the Airport Inquiry Commission) being Exhibits 1 to 87 presented before J.W. Swackhamer, Q.C., at his hearings held pursuant to the *Expropriation Act*, namely:

**Exhibit No.**

**(Swackhamer) Title**

- 1 Order of the Minister of Public Works dated November 8, 1972
- 2 Appointment made by the Attorney General of Canada dated November 9, 1972
- 3 Notice of Public Hearing dated November 15, 1972.
- 4 Notices published in the News Advertiser, Toronto Daily Star, Toronto Globe and Mail, the Toronto Sun and the Markham Economist
- 5 Report by L. Almack — Analysis of the Decision.
- 6 Map of Metropolitan Toronto, N.T.I.A. Pickering, Cedarwood Townsite and Provincial Land Use Freeze
- 7 Paper entitled "Pickering, the Toronto II

- Airport and North Pickering Development” by K. Fallis
- 8 ARDA Land Classification Map.
- 9 Article from Toronto Daily Star by G. Hodge
- 10 Booklet “Ontario Economic Review” May/June 1972
- 11 Summary by P. Oehm
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- 13 “Design for Development: TCR Concept” May 1970
- 14 “Design for Development: Status Report on TCR by W.D. McKeough” August 1971
- 15 Strok Report “A Physical Development Study of Selected Urban Centres for New T.I.A.”
- 16 Newspaper clipping November 27, 1972 Toronto Daily Star
- 16a Speech entitled “Canadian Air Transportation Administration — Its Philosophy and Its Framework for the Future” by W.H. Huck
- 16b Speech July 1971 at Calgary Conference
- 16c “STOL Aircraft in Future Transport System” by E.E. Marshall
- 16d “Future of Aeronautics” September 1971 by John Allen
- 17 Newspaper clipping January 1972
- 18 Newspaper clipping June 12, 1972
- 19 Memorandum by P. Creighton, F.C.A.
- 19a Brief by W. Draper
- 20 Submission by W. Baird
- 21 Memo from Environmental Law Association: Nora Geraghty

- 21a Analysis by B. Buckles
- 21b “Catchment” Area speech June 1972 by Mr. Davis.
- 22 Airport Need Summary
- 23 Notes for an Address by the Honourable Don Jamieson, Minister of Transport to the York County and District Real Estate Board at Aurora, Ontario, June 14, 1972
- 24 Objections of Town of Whitchurch-Stouffville to Expropriation of Lands for an Airport in Pickering November 1972
- 25 Map of Whitchurch-Stouffville
- 26 Letter to the Minister of Public Works from the Leader of the Opposition
- 27 Map of Whitchurch-Stouffville filed by Mr. Stevens November 30
- 28 Map of Town of Whitchurch-Stouffville
- 29 Map of New International Airport at Montreal (Ste. Scholastique)
- 30 Polls and votes within Whitchurch-Stouffville Area.
- 31 List of members of the Metropolitan Toronto Airport Review Committee
- 32 Booklet entitled “Hercules Amphibian”
- 33 Globe and Mail articles by Mr. Gellmar (two)
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- 37 Paper by Dr. Norman Pearson entitled

- “The Great Lakes as a Human Resource”
- 38 Letter of June 30 to Mr. Lash from Mr. Jack Davis, Minister of Environment
- 39 Reproduction of article in Toronto Star, April 30
- 40 Document published by Environmental Law Research Foundation entitled “Public Rights and Environmental Planning”, January 1972.
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- 42 Bound Volume entitled ‘Aquaport Systems International’
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- 47 Map entitled “Size and Effects on Toronto of Proposed 2’nd Airport and Cedarwood Development”
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- 49a Association of Bay Area Governments publication “Aviation Future”
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- 58 Notes prepared by Mr. Green.
- 59 Brief of Warchester Investments Ltd. together with survey
- 60 Map outlining Regional Municipality of York
- 60a Submission from Regional Municipality of York
- 61 Minute No. 58 and No. 189 of the Council of the Regional Municipality of York
- 62 Document headed “Town of Whitchurch-Stouffville Zoning By-Law” January 1972
- 63 Two page article from Toronto Daily Star of February 20, 1971, headed “Orangeville Area Favoured by Ottawa for new Airport”.
- 64 Acknowledgement of receipt of Objection of Regional Corporation of York dated November 6, 1972

- 65 Notice of Intention to Expropriate  
Whitchurch-Stouffville
- 66 Notice of Intention to Expropriate in  
Townships of Pickering and Uxbridge
- 67 Document entitled "Opinions Proposed-  
Toronto II Airport-Survey of Toronto  
Area Candidates for the Federal  
Election"
- 68 Paper entitled "Proposed Pickering Air-  
port-Opinions of Toronto Area MP's  
Elected October 30, 1972
- 69 Submission of Miss Ellen Adams
- 70 Article by Captain Desmarais
- 71 Brief of Richard James
- 72 Written submission of Mr. Brian Buckles,  
"Why Expropriation Now?"
- 73 Photograph of the Miller House
- 74 Submission of Mrs. Kathleen Strike
- 75 Letter from the Secretary of Board of  
Trustees of the Brunswick Cemetery
- 76 Letter of H and Y Developments Ltd.,  
Felray Investments Ltd., undated ad-  
dressed to Right Hon. Mr. Trudeau
- 77 Letter of Objection from Mr. H.A. Har-  
court dated December 6, 1972
- 78 Statement of Mr. Mitchell
- 79 Circular from egg-laying contest in Mon-  
treal in 1938
- 80 Submission by Mr. Ritchie with  
attachments
- 81 Judge Terence Moore's brief, together  
with the exhibits attached thereto.
- 82 Submission by Thelma Robinson, four  
pages undated

- 83 Submission by Mr. Terry H. Erhart, two pages dated October 30, 1972.
- 84 Letter from Mr. P.W.J. Mingay to Mr. J.W. Swackhamer dated December 7, 1972.
- 85 Two letters from the Douglas Page family dated November 20, 1972.
- 86 Letter from Mr. and Mrs. Harold Lewis, with attachments
- 87 Commentary by Mr. Allen R. Graham to slide presentation.

(e) **Exhibit 7** (of the Airport Inquiry Commission) being:

- A-2 Forecasts of General Aviation for the Toronto Region, January, 1973.
- A-19 Passenger Distribution and Airport Assignment Study, Phase II, Stage 2, Airport Roles, April, 1972.

B. "Other" evidence.

(a) **Witnesses**

Witness	Date	Transcript Page	Exhibits
Beinhaker, P.	Apr 23	3153 (cross-examination McDonald)	none
	Apr 25	3562	none
Duggan, John M.	Apr 24	3428	452, 453, 454
	Apr 24	3450 (c.e. MacKinnon)	none
		3452 (c.e. Lockett)	none
		3453 (c.e. Macaulay)	none

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Witness	Date	Transcript Page	Exhibits
Elek, Andrew	Apr 22	2984	414- A, 414- B, 415, 429
	Apr 23	3138 (c.e. McDonald) 3270 (c.e. Waterman) 3275 (c.e. Macaulay)	none
	Apr 25	3492	none
	Apr 25	3517 (c.e. McDonald) 3537 (c.e. Macaulay)	457
			none
	Apr 22	3087	431, 432, 433
	Apr 23	3239	none
	Apr 24	3404	450
Gillen, James E.	Apr 24	3457	none
	Apr 24	3472 (c.e. MacKinnon) 3473 (c.e. Macaulay)	none
			none
Hamer, Ian M. Kettle, John	Apr 24	3472 (c.e. MacKinnon) 3473 (c.e. Macaulay)	none
			none
			none

<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
Nasi, W.	Apr 23	3180 (c.e. McDonald)	none
		3309 (c.e. Macaulay)	none
Pearson, Dr. P.	Apr 22	3096	434, 438
	Apr 23	3257 (c.e. Macaulay)	none
Potvin, L.	Apr 23	3150 (c.e. McDonald)	none
		3268 (c.e. Waterman)	none
	Apr 25	3562 (c.e. Waterman)	458
	Apr 23	3351	449
Ritchie, David A. Ross, D.	Apr 23	3171 (c.e. McDonald)	none
		3259 (c.e. Waterman)	none
	Apr 25	3492	none
	Apr 25	3535 (c.e. McDonald)	none
Stratford, H. Ralph Vance, J.	Apr 24	3413	451, 452
	Apr 25	3553	458



- (b) Documentary (being Exhibits 414-A, 414-B, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 431, 432, 433, 434, 435, 436, 437, 438, 449, 450, 451, 452, 453, 454, 457 and 458 of the Airport Inquiry Commission)

(1) **Exhibit 414-A** (of the Airport Inquiry Commission) — Vol. 1 of B55 — Originating-Terminating Passenger Forecasts for the Toronto Airports System.

(2) **Exhibit 414-B** (of the Airport Inquiry Commission)— Vol. II of B55 — Originating-Terminating Passenger Forecasts for the Toronto Airports System — Appendices

(3) **Exhibit 415** (of the Airport Inquiry Commission) — Estimated Annual Round Trips per Thousand People.

(4) **Exhibit 416** (of the Airport Inquiry Commission) — Chart entitled Annual Round-Trips per One Thousand People.

(5) **Exhibit 417** (of the Airport Inquiry Commission) — Document entitled, “Distribution of People by Income Class”.

(6) **Exhibit 418** (of the Airport Inquiry Commission) — Document entitled, “Income and Population — Canada”.

(7) **Exhibit 419** (of the Airport Inquiry Commission) — Panel entitled, “Canada — GNP”.

(8) **Exhibit 420** (of the Airport Inquiry Commission) — Chart entitled, “Income Distribution — Ontario”.

(9) **Exhibit 421** (of the Airport Inquiry Commission) — Chart entitled, “Modifying Factors, 1961-1971”.

(10) **Exhibit 422** (of the Airport Inquiry Commission) — Panel entitled, “Average Costs and Revenues of U.S./ Canadian International Airlines”.

(11) **Exhibit 423** (of the Airport Inquiry Commission) — Panel showing passenger miles, fares, and consumer spending.

- (12) **Exhibit 424** (of the Airport Inquiry Commission) – Panel entitled, “Passenger Traffic Ratio”.
- (13) **Exhibit 425** (of the Airport Inquiry Commission) – Document entitled, “Resident and Non-Resident Air Traffic”.
- (14) **Exhibit 426** (of the Airport Inquiry Commission) – Chart entitled, “Forecast-Total Traffic (1965-2000)”.
- (15) **Exhibit 427** (of the Airport Inquiry Commission) – Chart entitled “Forecast Total Traffic (1960-2000)”.
- (16) **Exhibit 428** (of the Airport Inquiry Commission) – Toronto hub previous and new forecast of annual originating and terminating passengers.
- (17) **Exhibit 429** (of the Airport Inquiry Commission) – Sample studies.
- (18) **Exhibit 431** (of the Airport Inquiry Commission) – Summary of B-57 – 1972 Toronto International Airport Survey.
- (19) **Exhibit 432** (of the Airport Inquiry Commission) – Regional Distribution of Air Passengers. 1972 Toronto International Airport Survey.
- (20) **Exhibit 433** (of the Airport Inquiry Commission) – Chart entitled, “1972 Toronto International Airport Survey Income Distribution of Passengers”.
- (21) **Exhibit 434** (of the Airport Inquiry Commission) – Document entitled, “Air Cargo Forecast Update Interim – February, 1974”.
- (22) **Exhibit 435** (of the Airport Inquiry Commission) – Chart entitled, “Comparison of Forecast Air Cargo Growth Rates, 1970-1990”.
- (23) **Exhibit 436** (of the Airport Inquiry Commission) – Panel entitled, “1963-1971 Behaviour of Air Cargo User Costs – Canada”.
- (24) **Exhibit 437** (of the Airport Inquiry Commission) – Panel entitled, “Comparison of Cargo Growth at Quadrupling of Fuel Costs”.
- (25) **Exhibit 438** (of the Airport Inquiry Commission) –

Document entitled, "Southwestern Ontario Airport Forecast of Total Demand and Airport Patronage, April 1974".

(26) **Exhibit 449** (of the Airport Inquiry Commission) – Brief presented by Mr. David W. Ritchie.

(27) **Exhibit 450** (of the Airport Inquiry Commission) – Statement of Mr. Hamer.

(28) **Exhibit 451** (of the Airport Inquiry Commission) – Submission of H.R. Stratford, AIC-209.

(29) **Exhibit 452** (of the Airport Inquiry Commission) – Predicted mix of transport aircraft, 1985.

(30) **Exhibit 453** (of the Airport Inquiry Commission) – Calculations of Mr. Duggan.

(31) **Exhibit 454** (of the Airport Inquiry Commission) – Document entitled, "Profiles of Scheduled Air Carrier Passenger Traffic, May 4, 1973".

(32) **Exhibit 457** (of the Airport Inquiry Commission) – Graphs and statistical material from Statistics Canada and the Economic Council Report and the Report of the National Standing Committee on Finance.

(33) **Exhibit 458** (of the Airport Inquiry Commission) – Document B-56, New Toronto International Airport (Pickering), A Study of Road Access for 1980.

2. Evidence relating to Question 1. (a) (ii) in the *Order in Council* P.C. 1973-3026 which was categorized as Phase I, Question 1 (1)-(4) by the Commission in its Schedule of Hearings.

A. "Old" evidence (being Exhibits 3, 4, 5, 6, 7 and 8 of the Airport Inquiry Commission).

(a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of the documentary evidence given at the Expropriation Hearing of Swackhamer).

Tab 1.1 Master Plan for Toronto International Airport – Prepared for the Department of Transport, Ottawa, by John B. Parkin Associates, Architects and Engineers – November 1967.

Tab 1.2 Summary Document prepared by Ministry of Transport for Information Purposes – December 1968.

Tab 1.3 Outline Conceptual Plan, Toronto International Airport – 1969.

Tab 1.5 Progress Report on Expansion of Major Airport Facilities in the Toronto Region – Department of Transport – May 30, 1969.

Tab 1.7 Review of Reports prepared for Toronto Planning Team, dated May 11, 1970.

Tab 1.8 Toronto Airport Planning – Position Paper – Toronto Airport Planning Team (APY), Canadian Air Transportation Administration, Ministry of Transport – May 1970.

Tab 1.9 Toronto Airport Planning – Position Paper – Toronto Airport Planning Team (APY) Canadian Air Transportation Administration, Ministry of Transport, August 1970.

Tab 1.10 Letter to Mr. D.R. Hemming, Director, Planning and Research, Air, Department of Transport – from Hans Blumenfeld, Planning Consultant, Toronto, dated August 17, 1970 (Review of August 1970 Position Paper).

Tab 1.11 Second Toronto Airport, Site Evaluation – Technical Report – Toronto Airport Planning Team, Canadian Air Transportation Administration, Ministry of Transport – September 1970.

Tab 1.12 Strategy Paper Relating Aviation Systems to Broad Policies and Programs of Public and Private Sectors, Dated September 8, 1970.

Tab 1.13 Toronto Area Airports System Plan – First Strategy Assignment – September 1970.

Tab 1.14 Letter Report dated 30 September 1970, Relating to Financial Strategies.

Tab 1.15 Second Assignment – Financial Strategies – October 1970.

Tab 1.16 Tap System Analysis – February 1971 (Summary of steps in ongoing work on the aviation plan).

Tab 1.17 An Evaluation of the Impact of STOL on the Toronto Area Airport System – Toronto Airports Project – April 1971.

Tab 1.18 Toronto Area Airports Project — Financial Planning Report One — July 1971.

Tab 1.19 Air Passenger Distribution and Airport Assignment Study — June 1971.

Tab 1.23 Toronto Area Aviation Systems — Progress Report — September 14, 1971.

Tab 1.24 Passenger Distribution and Airport Assignment Study — Stage I of Phase II — January 1972.

Tab 1.26 a) Financial Planning Report Two — Ministry of Transport, Canadian Air Transportation Administration, Toronto Area Airports Project — December 1971.

Tab 1.26 b) Financial Planning Report Two — Volume 2 — Appendix A — Site Evaluation Northeast Plus Malton.

Tab 1.27 Toronto Area Aviation System: Presentation — January 28, 1972.

Tab 2.1 Passenger and Cargo Forecasts including methodology — April 21, 1972.

Tab 2.2 Forecasting and the New Toronto Airport — June 30, 1972.

Tab 2.3 Aircraft Movement Forecasts and the New Toronto Airport — May 31, 1972.

Tab 2.4 Air Transportation Statistics — Forecasts: Air Traffic Movements, Passengers, Cargo — December 1969.

Tab 2.5 Air Statistics and Forecasts to be used by the Toronto Airport Planning Team — 1970.

Tab 2.6 Review and Update of Existing Air Traffic Forecasts — March 1971.

Tab 2.7 Revised Air Traffic Forecasts for the Toronto Region — May 1971.

Tab 2.8 O and D Statistics and Forecasts for Toronto Airport — February 1971.

Tab 2.9 Revised Aircraft Movement Forecasts — November 1971.

Tab 2.10 A Comprehensive Survey of Passengers Flying from Toronto International Airport, May-June 1968.

Tab 2.11 Ground Transportation Travel Surveys — August 1969.



Tab 2.12 Malton Survey and Measurement Project — January 1972.

Tab 2.13 Air Passenger Forecasts — January 1972.

Tab 2.14 Aviation in Canada 1971 — February 1972.

Tab 3.1 A Framework for Air Cargo Forecasting, Toronto Region, 1970-2000, November 1971.

Tab 3.2 Air Cargo Forecasts: The Toronto Region, 1970-2000, April 1972.

Tab 4.1 Flight Information Manual, 1972.

Tab 4.2 Airport Capacity Handbook, Second Edition, June 1969.

Tab 4.3 Toronto Terminal Area System Capacity and Airport Location, January 1970.

Tab 4.4 Airport Capacity Analysis, Toronto International Airport, April 1970.

Tab 4.5 The Effect of Parallel Runway Separation on Airports Capacity, Toronto International Airport, August, 1970.

Tab 4.6 Special Procedures for Handling Heavy Jets, July 1971.

Tab 4.7 Procedures for Control of Aircraft Following Heavy Jet Aircraft, August 1971.

Tab 4.8 Heavy Jet Separation Criteria, July 1972.

Tab 5.1 General Aviation in Toronto and the New Toronto Airport — June 29, 1972.

Tab 5.2 A Study of General Aviation in the Toronto Area — December 1968.

Tab 5.3 ATC Study of Future General Aviation Airport Development in the Toronto Area — May 1970.

Tab 5.4 General Aviation Inventory — June 1970.

Tab 6.1 Congressional Air Transportation Congestion Study — January 1971.

Tab 6.2 Air Charter Operations and Airport Congestion — September 1970.

Tab 6.3 Air Charter Operations and Terminal Congestion — November 1970.

Tab 6.4 Terminal Congestion at Toronto International Airport – December 1971.

Tab 7.1 A Description of the CNR and NEF Systems for Estimating Aircraft Noise Annoyance – October 1971.

Tab 7.2 A Study of the Aircraft Noise Considerations, Toronto International Airport, with regard to Opening Date of Toronto II – May 1970.

Tab 7.3 Aircraft Noise Considerations, Toronto International Airport, Malton 1971-1980 – September 1972.

Tab 8.1 “Economic Impact of Implementing Acoustically Treated Nacelle and Duct Configurations Applicable to Low By-pass Turbofan Engines”, prepared for U.S. Federal Aviation Administration, Office of Noise Abatement, by Rohr Corp. – July 1970.

Tab 8.2 “New Noise Regulations Possible for SST’s, Aviation Week and Space Technology” – April 19, 1971.

Tab 8.3 “Acoustical Retrofit Bill Stirs Controversy”, Aviation Week and Space Technology – April 1971.

Tab 8.4 “NASA and FAA Argue Over Money for Quieter Engines”, Aviation Daily – July 16, 1971.

Tab 8.5 “Boeing, Douglas Outline Aircraft Noise Research Difficulties”, Aviation Daily – July 16, 1971.

Tab 8.6 “Flight Test Noise Measurement Results” chart – December 1, 1971.

Tab 8.7 “Aircraft Noise in the 1980’s”, Tech Air – January 1972.

Tab 8.8 “Stop That Noise”, Flight International – February 10, 1972.

Tab 8.9 “Engine Noise Antidotes Weighed”, Aviation Week and Space Technology – February 14, 1972.

Tab 8.10 “Noise is Off”, Flight International – March 23, 1972.

Tab 8.11 “The NASA Quiet Engine Program”, A NASA Technical Memorandum – March 1972.

Tab 8.12 “The NASA Cites Jet Noise Reduction Gains”, Aviation Week and Space Technology – April 19, 1972.

Tab 8.13 “How Noisy Are the Widebodies?”, April 1972.

Tab 8.14 “Aircraft Noise”, MOT U.K. Newsletter.

Tab 8.15 “Aircraft Noise – Quiet Engine Development and Retrofit”: Remarks by the Associate Administrator, NASA – May 16, 1972.

Tab 9.1 Toronto International Airport – Malton, Development Planning, Toronto Area Airports System, Transport Canada, March 1972.

Tab 9.2 Toronto International Airport: Recommended Runway Configuration, October 1968.

Tab 9.3 Toronto International Airport Expansion, August 1970.

Tab 9.4 Toronto International Airport (Malton), Road Access to 1990, November 1970.

Tab 9.5 Toronto International Airport (Malton) Ground Transportation to Year 2000, November 1970.

Tab 9.6 Ground Transportation Requirements for Infield Terminal, November 1970.

Tab 9.7 Preliminary Report, Water Supply and Waste Disposal Cistern, Toronto International Airport, August 1970.

Tab 9.8 Etobicoke Creek Realignment, July 1970.

Tab 9.9 Malton User Costs.

Tab 9.10 Capacity Forecast, TIA Malton, July 1971.

Tab 9.11 Working Report, Toronto International Airport Study, October 1967.

Tab 11.1 The impact of STOL on the Toronto Area Airports System – July 11, 1972.

Tab 11.2 An Assessment of STOL Technology – November 1970.

Tab 11.3 STOL Aircraft Future Trends – May 1971.

Tab 11.4 STOL Transportation System Planning – May 1971.

Tab 11.5 V/STOL Community Annoyance due to Noise: Proposed Indices and Levels – March 1972.

Tab 11.6 A Review and Analysis of STOL Systems Technology – April 1970.

Tab 11.7 Preliminary Report Concerning the Possible Noise Certification of STOL Aircraft – November 1971.

Tab 11.8 Canada's STOL Program – A Progress Report, with attachment, October 1971.

Tab 12.1 New Ground Transportation Technology and the New Toronto Airport – May 4, 1972.

Tab 12.2 Advanced Ground Transportation Technology and the New Toronto Airport – July 11, 1972.

Tab 12.3 Intercity Passenger Transport Study – September 1970.

Tab 12.4 Intercity Passenger Transport Study: Tracked Air Cushion Vehicles in the Canadian Corridor – edited March 1971.

Tab 12.5 Intercity Passenger Transport Study: Operating Costs for Conventional and STOL Aircraft – prepared November 1971.

Tab 13.4 Air Quality and the New Toronto Airport, May 4, 1972.

Tab 13.5 Ground Transportation to the New Toronto Airport, May 4, 1972.

Tab 13.20 Transportation Study, Alternative Site Locations, April 22, 1970.

Tab 13.23 Documentation of Cost Data, June 1971.

Tab 13.27 Toronto International Airport System ( Economic Analysis) 1970-1990 – October 1970.

Tab 13.29 Ground Transportation Cost Analysis, Alternative Airport Systems – February 1972.

Tab 13.30 An Analysis of Toronto International Airport System – November 1968.

Tab 13.38 A Study of Commercial Air Traffic in the Toronto Region in regard to a Proposed Two-Airport System – July 1969.

Tab 13.45 Toronto II: Downtown and Malton Passenger Processing – March 1971.

Tab 17.1 Toronto II Airport Size Alternatives – February 11, 1971.

Tab 18.1 People, Malton, and the New Toronto Airport, June 12, 1972.

Tab 18.6 Toronto Lakeshore Site Suitability, January 1970.

Tab 18.7 Feasibility Study of Present and Proposed Toronto Island Airports, November 1967.

(b) **Exhibit 4** (Of the Airport Inquiry Commission) being the following Provincial Documents.

(1) Provincial Document IA — Ontario Government Pickering Airport Site.

(2) Provincial Document IB — Statement to Legislature by W.D. McKeough, June 6, 1972.

(3) Provincial Document I — Meeting Summary Dated November 19, 1968.

(4) Provincial Document II — Internal Memo dated December 10, 1968.

(5) Provincial Document III — Public Statement by W.D. McKeough, Re: Airport Noise at Malton, October 9, 1969.

(6) Provincial Document VI — Population and Dwelling Estimates — Malton Airport.

(7) Provincial Document VII — Toronto Airport Location — Proposed Malton Expansion.

(8) Provincial Document VIII — A Brief Study Outlining the Road Network and Rapid Transit System to serve Malton Airport in the Year 2000.

(9) Provincial Document IX — Summary report on Status of Airport Planning — Toronto II.

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- 60a Submission from Regional Municipality of York
- 61 Minute No. 58 and No. 189 of the Council of the Regional Municipality of York
- 62 Document headed "Town of Whitchurch-Stouffville Zoning By-Law" January 1972
- 63 Two page article from Toronto Daily Star of February 20, 1971, headed "Orangeville Area Favoured by Ottawa for new Airport".
- 64 Acknowledgement of receipt of Objection of Regional Municipality of York dated November 6, 1972
- 65 Notice of Intention to Expropriate Whitchurch-Stouffville
- 66 Notice of Intention to Expropriate in Townships of Pickering and Uxbridge
- 67 Document entitled "Opinions Proposed-Toronto II Airport-Survey of Toronto Area Candidates for the Federal Election"
- 68 Paper entitled "Proposed Pickering Airport-Opinions of Toronto Area MP's Elected October 30, 1972
- 69 Submission of Miss Ellen Adams
- 70 Article by Captain Desmarais
- 71 Brief of Richard James
- 72 Written submission of Mr. Brian Buckles, "Why Expropriation Now?"
- 73 Photograph of the Miller House
- 74 Submission of Mrs. Kathleen Strike
- 75 Letter from the Secretary of Board of Trustees of the Brunswick Cemetery



- 76 Letter of H and Y Developments Ltd., Felray Investments Ltd., undated addressed to Right Hon. Mr. Trudeau
- 77 Letter of Objection from Mr. H.A. Harcourt dated December 6, 1972
- 78 Statement of Mr. Mitchell
- 79 Circular from egg-laying contest in Montreal in 1938
- 80 Submission by Mr. Ritchie with attachments
- 81 Judge Terence Moore's brief, together with the exhibits attached thereto
- 82 Submission by Thelma Robinson, four pages undated
- 83 Submission by Mr. Terry H. Erhart, two pages dated October 30, 1972
- 84 Letter from Mr. P.W.J. Mingay to Mr. J.W. Swackhamer dated December 7, 1972
- 85 Two letters from the Douglas Page family dated November 20, 1972
- 86 Letter from Mr. and Mrs. Harold Lewis, with attachments
- 87 Commentary by Mr. Allen R. Graham to slide presentation.

(e) **Exhibit 7** of the Airport Inquiry Commission) being:

- A 1 Toronto International Airport (Malton) Systems Analysis — (ORD 65), November 1965.
- A 2 Forecasts of General Aviation for the Toronto Region, January 1973.
- A 3 Aerodrome Standards, Physical Characteristics and Zoning Requirements, December 1973.
- A 5 Design for Development: The Toronto-Centred Region, May 1970.

- A 6      Design for Development: A Status Report on the Toronto-Centred Region, August 1970.
- A 7      Annex of Understanding agreed by the Government of Canada and the Government of Ontario, March 1, 1972.
- A 8      Toronto Commuter Rail Study, November 1972.
- A 9      Expansion of Aviation Systems for Toronto and Southwestern Ontario: Ministry of Transport Releases, March 2, 1972.
- A11      Revolving Fund Authority, January 1970, March 1971.
- A13      House of Commons Debates: Official Report, Tuesday, January 30, 1973.  
— Statement by The Honourable Jean-Eudes Dubé, Minister of Public Works, to the House of Commons (Page 765).  
— Statement by Transport Minister The Honourable Jean Marchand on “The Site Selection for a Second Toronto-Centred Region International Airport” (page 812).
- A14      Summary Report: Planning of TIA Malton, December 1973.
- A16      A Study of the Toronto Island Airport to Determine its Potential as a Civil Aviation Airport and its Potential for STOL Operations (No. 168), July 1972.
- A19      Passenger Distribution and Airport Assignment Study, Phase II, Stage 2, Airport Roles, April 1972.
- A20      Brief Opposing Expansion of Toronto International Airport, December 13, 1968.

- A21 An Urban Transportation Policy for Ontario, November 22, 1972. — Statement by The Honourable William G. Davis, Premier of Ontario.
- A22 Federal Aviation Regulations, Volume III. Part 36, Noise Standards: Aircraft Type Certification, December 1, 1969.
- A23 A Quiet Alternative Airport Plan, 1972, The deHavilland Aircraft Company of Canada, Limited
- A24 Evaluation of STOLport Locations in Greater Toronto, April 1972.
- A25 The Effects of Introducing STOL Service on Malton Development, May 1972.
- A26 STOLport Site Evaluation, Toronto, Ontario, Report S-71-18, Ottawa, September 1972.
- A27 An Assessment of STOL Technology, July 1970 (CTC 1970).
- A28 Analysis of "A Quiet Alternative Airport Plan", 1972.

(f) **Exhibit 8** (of the Airport Inquiry Commission) being:

- C 1 Land Use in the Vicinity of Airports, revised 1972.
- C 2 New Housing and Airport Noise: A Supplement to the Site Planning Handbook by CMHC, revised 1972.
- C 3 Noise Exposure Forecasts: Evolution, Evaluation, Extensions and Land Use Interpretations, August 1970.

B. "Other" evidence.

(a) **Witnesses**

Witness	Date	Transcript Page	Exhibits
Beak, A.K.	Mar 25	940	none

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Witness	Date	Transcript Page	Exhibits
Beinhaker, P.	Mar 25	956 (c.e. Wright)	none
	Mar 25	975 (c.e. Monaghan)	none
	Mar 25	889 (c.e. Monaghan)	none
		939 (c.e. Weir)	none
		949 (c.e. Wright)	none
		975 (c.e. Monaghan)(2nd)	none
	Mar 25	1000 (re- examine)	63
	Mar 25	1023 (c.e. Weir)(2nd)	none
	Mar 25	1036 (c.e. Wright)(2nd)	none
	Mar 27	1377	104
Bhoola, B.	Mar 27	1386	106
	Mar 27	1394 (c.e. Waterman)	none
Bickley, J.	Mar 27	1362	103

<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
	Mar 27	1374 (c.e. Wright)	none
Coulas R.I.	Mar19	333	37 — 42
	Mar 19	379 (c.e. Marsden)	none
	Mar 19	389 (c.e. Skells)	none
	Mar 19	401 (c.e. Weir)	none
	Mar 25	843 (c.e. Monaghan)	none
Devitt, H.	Mar 18	231	9, 10.
Dunn, B	Mar 27	1291	99, 100.
	Mar 27	1306 (c.e. Lockett)	none
	Mar 27	1316 (c.e. Wright)	none
	Mar 27	1317 (c.e. Dunne)	none
Edmiston, R.D.	Mar 19	355	44 — 45
	Mar 19	385 (c.e. Marsden)	none
	Mar 19	396 (c.e. Skells)	none



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<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
	Mar 19	396 (c.e. Skells)	none
	Mar 19	402 (c.e. Weir)	none
	Mar 25	849 (c.e. Monaghan)	none
Elek, A.	Mar 19	283	21 — 31
Etherington, V.	Mar 27	1326	101
	Mar 27	1351 (c.e. Dunne)	none
Filotas, L.T.	Mar 19	349	43
	Mar 19	402 (c.e. Weir)	none
	Mar 25	844 (c.e. Monaghan)	none
Fitton, L.	Mar 25	867 (c.e. Monaghan)	none
	Mar 25	937 (c.e. Weir)	none
	Mar 25	986 (c.e. Monaghan-2)	none
Gwilliam, R	Mar 19	383 (c.e. Marsden)	none

Witness	Date	Transcript Page	Exhibits
	Mar 19	393 (c.e. Skells)	none
	Mar 25	904 (c.e. Monaghan)	none
	Mar 25	947 (c.e. Wright)	none
	Mar 25	990 (c.e. Monaghan-2)	none
Hamer, I.M.	Mar 27	1217	96, 97
	Mar 27	1244 (c.e. Wright)	none
Heath, T.M.	Mar 27	1156	73-75
	Mar 27	1181 (c.e. Wright)	none
	Mar 27	1195 (c.e. Dunne)	none
Jackes, W.	Mar 27	1353	102
	Mar 27	1357 (c.e. Wright)	none
Law, W.	Mar 25	922	57-62
	Mar 25	935 (c.e. Weir)	none
	Mar 25	941 (c.e. Wright)	none

*Airport Inquiry Commission Report*

<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
	Mar 25	989 (c.e. Monaghan)	none
Lewis, P.	Mar 27	1326	none
	Mar 27	1352 (c.e. Dunne)	none
Lloyd, G.W.	Mar 25	879 (c.e. Monaghan)	none
	Mar 25	982 (c.e. Monaghan-2)	none
McLean, G.B.	Mar 27	1383	105
Pearson, P.	Mar 19	317	32-34
			35A,B,C
Potvin, L	Mar 25	887 (c.e. Monaghan)	36 none
	Mar 25	994 (c.e. Monaghan)	none
	Mar 25	998 (c.e. Wright)	none
	Mar 25	1028 (c.e. Wright-2)	none
Potvin	Mar 26	1050 (c.e. Monaghan)	none

<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
Ross, T.D.F.	Mar 18	257	12 — 18
Saunders, L.C.H.	Mar 25	949 (1) (c.e. Wright)	none
Simpson, C.N.	Mar 18	248	11
	Mar 25	914	55-56
	Mar 25	936 (c.e. Weir)	none
	Mar 25	956 (c.e. Wright)	none
	Mar 25	990 (c.e. Monaghan)	none
Stratford, H.R.	Mar 27	1259	98
	Mar 27	1289 (c.e. Wright)	none
	Mar 27	1290 (c.e. Butler)	none
Tidd, P.	Mar 25	864 (c.e. Monaghan)	none
Truman, R.S.	Mar 26	1102	71, 72
	Mar 26	1112 (c.e. Weir)	none
	Mar 26	1121 (c.e. Wright)	none

*Airport Inquiry Commission Report*

Witness	Date	Transcript Page	Exhibits
Vance, J.	Mar 26	1129 (c.e. Dunne)	none
	Mar 26	1132 (c.e. Monaghan)	none
	Mar 25	1011	64-66
	Mar 25	1021 (c.e. Weir)	none
	Mar 25	1028 (c.e. Wright)	none
	Mar 26	1043 (c.e. Wright)	none
	Mar 26	1045 (c.e. Monaghan)	none
	Mar 26	1072	67-70
	Mar 26	1091 (c.e. Wright)	none
	Mar 26	1095 (c.e. Dunne)	none
Waite	Mar 26	1095 (c.e. Monaghan)	none

- (b) Documentary (being Exhibits 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 35A, 35B, 35C, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 77, 78, 79, 80, 81, 82, 83, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, and 106 of the Airport Inquiry Commission)

- (1) **Exhibit 9** (of the Airport Inquiry Commission) Site plan outlining in red the boundaries of the airport proper.
- (2) **Exhibit 10** (of the Airport Inquiry Commission)



Aerial photograph taken by the Ministry of Transportation and Communications, showing the basic runway layout and topography of Toronto International Airport.

(3) **Exhibit 11** (of the Airport Inquiry Commission) Document headed “Toronto Airports Project, Aviations Systems Planning Branch, December 1973”.

(4) **Exhibit 12** (of the Airport Inquiry Commission) Summary of forecasts.

(5) **Exhibit 13** (of the Airport Inquiry Commission) Chart entitled “Actual and Forecast Enplaned/Deplaned Passengers for Toronto Area Airports System”.

(6) **Exhibit 14** (of the Airport Inquiry Commission) Chart entitled “Actual and Forecast Enplaned/Deplaned Passengers for Toronto Area Airports System”.

(7) **Exhibit 15** (of the Airport Inquiry Commission) Document entitled “Toronto Airports System Sector Mix, O/D Passengers”.

(8) **Exhibit 16** (of the Airport Inquiry Commission) Chart entitled “Actual and Forecast Enplaned/Deplaned Cargo for the Toronto Area Airports System”

(9) **Exhibit 17** (of the Airport Inquiry Commission) Chart entitled “Actual and Forecast Enplaned/Deplaned Cargo for the Toronto Area Airports System”.

(10) **Exhibit 18** (of the Airport Inquiry Commission) Document entitled “Actual and Forecast General Aviation Movements Which Must be Handled at Major Air Carrier Airports”

(11) **Exhibit 21** (of the Airport Inquiry Commission) Document entitled “Aircraft Movement Forecasts — Update April 1973”

(12) **Exhibit 22** (of the Airport Inquiry Commission) Chart entitled “Air Passenger Forecasts”

(13) **Exhibit 23** (of the Airport Inquiry Commission) Chart entitled “Sensitivity Comparison of Existing Forecast with New Forecast”.

(14) **Exhibit 24** (of the Airport Inquiry Commission) Table 4 to Exhibit 21

- (15) **Exhibit 25** (of the Airport Inquiry Commission)  
“Toronto Hub-Forecast Annual Aircraft Movements”
- (16) **Exhibit 26** (of the Airport Inquiry Commission)  
“Average Daily Aircraft Movements”.
- (17) **Exhibit 27** (of the Airport Inquiry Commission)  
“Peak Hour Analysis, February 1974”
- (18) **Exhibit 28** (of the Airport Inquiry Commission)  
“Hourly Aircraft and Passengers (also part of Table “C”  
to Exhibit 27)”
- (19) **Exhibit 29** (of the Airport Inquiry Commission)  
Graph entitled “Scheduled Peak Hour Aircraft  
Movements – Two Ways, Toronto”
- (20) **Exhibit 30** (of the Airport Inquiry Commission)  
“Scheduled Peak Hour Aircraft Movements, Two Ways,  
Toronto (B-2)”
- (21) **Exhibit 31** (of the Airport Inquiry Commission)  
“Design Peak Hour Deplaned Passengers, Toronto” (C-  
1)
- (22) **Exhibit 32** (of the Airport Inquiry Commission)  
“Revised Air Freight Movement Forecasts, 1970 to  
2000”, dated April, 1973.
- (23) **Exhibit 33** (of the Airport Inquiry Commission)  
“Forecasts of Air Freight Movement for the Toronto  
Region”
- (24) **Exhibit 34** (of the Airport Inquiry Commission)  
“Forecasts of Air Freight Movement for the Toronto  
Region”
- (25) **Exhibit 35** (of the Airport Inquiry Commission) “A  
Review of STOL Forecasts for the Toronto Region”
- (26) **Exhibit 35A** (of the Airport Inquiry Commission)  
“STOL Patronage Forecasts for the Toronto Region”
- (27) **Exhibit 35B** (of the Airport Inquiry Commission)  
Toronto Island STOLport Preliminary Master Plan
- (28) **Exhibit 35C** (of the Airport Inquiry Commission) A  
plan to introduce quiet STOL transportation in Canada  
1974-1977

- (29) **Exhibit 36** (of the Airport Inquiry Commission)  
“STOL Patronage Forecasts, Diversion from CTOL”
- (30) **Exhibit 37** (of the Airport Inquiry Commission)  
“Noise Exposure Forecasts for Toronto International Airport, Malton, and New Toronto International Airport, Pickering, 1971 to 1985”, dated February, 1974
- (31) **Exhibit 38** (of the Airport Inquiry Commission)  
Panel headed “Toronto Malton 1980, NEF Noise Contours”
- (32) **Exhibit 39** (of the Airport Inquiry Commission)  
Chart Entitled “Toronto Malton 1971/1972 NEF Noise Contours”
- (33) **Exhibit 40** (of the Airport Inquiry Commission)  
“Toronto Malton 1980 NEF Noise Contours”
- (34) **Exhibit 41** (of the Airport Inquiry Commission)  
“Disturbance From Flight Operations – 1980”
- (35) **Exhibit 42** (of the Airport Inquiry Commission)  
“Noise Measurement Project Malton, Summer 1973”
- (36) **Exhibit 43** (of the Airport Inquiry Commission) An  
Appraisal of the Aircraft Sound Description System  
(ASDS) January 1974
- (37) **Exhibit 44** (of the Airport Inquiry Commission)  
“Community Effects of Aircraft Operations”, February,  
1974.
- (38) **Exhibit 45** (of the Airport Inquiry Commission)  
“Nine Common Daily Activities”
- (39) **Exhibit 55** (of the Airport Inquiry Commission)  
Report entitled “Air Traffic Control” circular letter 6-3-  
P310-73, dated October 25, 1973
- (40) **Exhibit 56** (of the Airport Inquiry Commission)  
Document entitled “Pictorial Representation of Aircraft  
Trailing of Vortices”
- (41) **Exhibit 57** (of the Airport Inquiry Commission)  
Report B-28, Flight Information Manual 1973
- (42) **Exhibit 58** (of the Airport Inquiry Commission)  
Report B 35, Hourly Runway System Capacities for  
Airport Planning, February 1974

- (43) **Exhibit 59** (of the Airport Inquiry Commission) Document titled “Wake Turbulence Behind Aircraft”
- (44) **Exhibit 60** (of the Airport Inquiry Commission) Runway Capacity Without Wake Turbulence Separation Requirements.
- (45) **Exhibit 61** (of the Airport Inquiry Commission) Chart entitled “Runway Capacity with Wake Turbulence Separation Requirement”
- (46) **Exhibit 62** (of the Airport Inquiry Commission) Scheduled Peak Hour Demand and Capacity of Single Runway 14/32.
- (47) **Exhibit 63** (of the Airport Inquiry Commission) Summary of old evidence relevant to questions 1, 2, 3 and 4
- (48) **Exhibit 64** (of the Airport Inquiry Commission) Report B-49 “Forecast of the Year 2000 Toronto Airport System Groundside Travel Demand for Scenario H”
- (49) **Exhibit 65** (of the Airport Inquiry Commission) Comparison of Average Summer Trips in 2000 with 1969/71 two-way person trips, Scenario H.
- (50) **Exhibit 66** (of the Airport Inquiry Commission) Copy of letter from Ministry of Transportation and Communications, dated September 27, 1973.
- (51) **Exhibit 67** (of the Airport Inquiry Commission) Letter dated September 12, 1973.
- (52) **Exhibit 68** (of the Airport Inquiry Commission) Plan, Scheme B-2.
- (53) **Exhibit 69** (of the Airport Inquiry Commission) Chart entitled “Proposed Subdivisions in the City of Mississauga (1969)”
- (54) **Exhibit 70** (of the Airport Inquiry Commission) Brief of Borough of Etobicoke
- (55) **Exhibit 71** (of the Airport Inquiry Commission) Map illustrating superimposition of the NEF contour on the CNR contour.
- (56) **Exhibit 72** (of the Airport Inquiry Commission) Brief of Borough of Etobicoke

- (57) **Exhibit 73** (of the Airport Inquiry Commission)  
Map showing the 1971 population census, Canada.
- (58) **Exhibit 74** (of the Airport Inquiry Commission)  
Households and population by enumeration area.
- (59) **Exhibit 75** (of the Airport Inquiry Commission)  
Households and population by enumeration area.
- (60) **Exhibit 77** (of the Airport Inquiry Commission)  
Schedule A to Official Plan Amendment 51
- (61) **Exhibit 78** (of the Airport Inquiry Commission)  
Certified true copy of Amendment 51 to Official Plan  
Amendment 51.
- (62) **Exhibit 79** (of the Airport Inquiry Commission)  
Map showing subdivision applications pending; City of  
Brampton.
- (63) **Exhibit 80** (of the Airport Inquiry Commission)  
Map as described.
- (64) **Exhibit 81** (of the Airport Inquiry Commission)  
Map as described.
- (65) **Exhibit 82** (of the Airport Inquiry Commission)  
Map as described.
- (66) **Exhibit 83** (of the Airport Inquiry Commission)  
Map as described.
- (67) **Exhibit 96** (of the Airport Inquiry Commission)  
Evidence Statement of Ian M. Hamer
- (68) **Exhibit 97** (of the Airport Inquiry Commission)  
Commentary Financial Post July 1, 1972
- (69) **Exhibit 98** (of the Airport Inquiry Commission)  
Evidence Statement of H.R. Stratford.
- (70) **Exhibit 99** (of the Airport Inquiry Commission)  
Evidence Statement submitted by Ontario Aviation En-  
thusiasts Society
- (71) **Exhibit 100** (of the Airport Inquiry Commission)  
Letter to Mississauga from Department of Transport
- (72) **Exhibit 101** (of the Airport Inquiry Commission)  
Evidence Statement of the Society for Aircraft Noise  
Abatement.
- (73) **Exhibit 102** (of the Airport Inquiry Commission)

Evidence Statement of Humberlea Community Association

(74) **Exhibit 103** (of the Airport Inquiry Commission)  
Evidence Statement of New Airport Now

(75) **Exhibit 104** (of the Airport Inquiry Commission)  
Evidence Statement of Elms-Rexdale Residents' Association

(76) **Exhibit 105** (of the Airport Inquiry Commission)  
Evidence Statement of Rexdale Citizens' Group (1974)

(77) **Exhibit 106** (of the Airport Inquiry Commission)  
Evidence Statement of Centennial Community Association.

3. Evidence relating to Question 1. (b) (i) in the *Order in Council* P.C. 1973-3026 which was categorized as Phase I Question 2 (1) by the Commission in its Schedule of Hearings.

A. "Old" evidence (being Exhibits 3, 107, 4, 108, 5, 6, 7 and 8 of the Airport Inquiry Commission).

(a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.7 Review of Reports prepared for Toronto Planning Team, dated May 11, 1970.

Tab 1.8 Toronto Airport Planning — Position Paper, Toronto Airport Planning Team (APY), Canadian Air Transportation Administration, Ministry of Transport — May 1970.

Tab 1.9 Toronto Airport Planning — Position Paper — Toronto Airport Planning Team (APY), Canadian Air Transportation Administration, Ministry of Transport, August 1970.

Tab 1.10 Letter to Mr. D.R. Hemming, Director, Planning & Research, Air, Department of Transport from Hans Blumenfeld, Planning Consultant, Toronto, dated August 17, 1970 (Review of August 1970 position paper).

Tab 1.11 Second Toronto Airport, Site Evaluation — Technical Report — Toronto Airport Planning Team, Canadian Air Transportation Administration, Ministry of Transport — September 1970.



Tab 1.12 Strategy Paper Relating Aviation Systems to Broad Policies and Programs of Public and Private Sectors, dated 8 September 1970.

Tab 1.13 Toronto Area Airports System Plan — First Strategy Assignment, September 1970.

Tab 1.14 Letter Report dated 30 September 1970, Relating to Financial Strategies.

Tab 1.15 Second Assignment — Financial Strategies — October 1970.

Tab 1.16 Tap System Analysis — February 1971 (Summary of Steps in Ongoing work on the aviation plan).

Tab 1.17 An Evaluation on the Impact of STOL on the Toronto Area Airport System — Toronto Airports Project — April 1971.

Tab 1.24 Passenger Distribution and Airport Assignment Study — Stage I of Phase II — January 1972.

Tab 1.26(a) Financial Planning Report Two — Ministry of Transport, Canadian Air Transportation Administration, Toronto Area Airports Project, December 1971.

Tab 1.26 (b) Financial Planning Report Two — Volume 2 — Appendix A — Site Evaluation Northeast Plus Malton (restricted).

Tab 1.27 Toronto Area Aviation System: Presentation — January 28, 1972.

Tab 2.1 Passenger and Cargo Forecasts including Methodology — April 21, 1972.

Tab 2.2 Forecasting and the New Toronto Airport June 30, 1972.

Tab 2.3 Aircraft Movement Forecasts and the New Toronto Airport — May 31, 1972.

Tab 2.4 Air Transportation Statistics — Forecasts: Air Traffic Movements, Passengers, Cargo — December 1969.

Tab 2.5 Air Statistics and Forecasts to be used by the Toronto Airport Planning Team — 1970.

Tab 2.6 Review and Update of Existing Air Traffic Forecasts — March 1971.

Tab 2.7 Revised Air Traffic Forecasts for the Toronto Region – May 1971.

Tab 2.8 O. and D. Statistics and Forecasts for Toronto Airport – February 1971.

Tab 2.9 Revised Aircraft Movement Forecasts – November 1971.

Tab 2.10 A Comprehensive Survey of Passengers Flying from Toronto International Airport, May – June 1968.

Tab 2.11 Ground Transportation Travel Surveys – August 1969.

Tab 2.12 Malton Survey and Measurement Project – January 1972.

Tab 2.13 Air Passenger Forecasts – January 1972.

Tab 2.14 Aviation in Canada 1971 – February 1972.

Tab 7.1 A Description of the CNR and NEF Systems for Estimating Aircraft Noise Annoyance – October 1971.

Tab 7.3 Aircraft Noise Considerations, Toronto International Airport, Malton 1971-1980 – September 1972.

Tab 8.1 “Economic Impact of Implementing Acoustically Treated Nacelle and Direct Configurations Applicable to Low Bypass Turbofan Engines”, prepared for U.S. Federal Aviation Administration, Office of Noise Abatement, by Rohr Corp. – July 1970.

Tab 8.2 “New Noise Regulations Possible for SST’s”, Aviation Week and Space Technology – April 19, 1971.

Tab 8.3 “Acoustical Retrofit Bill Stirs Controversy”, Aviation Week and Space Technology – April 1971.

Tab 8.4 “NASA and FAA Argue Over Money for Quieter Engines”, Aviation Daily – July 16, 1971.

Tab 8.5 “Boeing, Douglas Outline Aircraft Noise Research Difficulties”, Aviation Daily – July 16, 1971.

Tab 8.6 “Flight Test Noise Measurement Results”, Chart – December 1, 1971.

Tab 8.7 “Aircraft Noise in the 1980’s”, Tech Air – January, 1972.

Tab 8.8 “Stop That Noise” Flight International – February 10, 1972.

Tab 8.9 “Engine Noise Antidotes Weighed”, Aviation Week and Space Technology – February 14, 1972.

Tab 8.10 “Noise is Off”, Flight International – March 23, 1972.

Tab 8.11 “The NASA Quiet Engine Program”, A NASA Technical Memorandum – March, 1972.

Tab 8.12 “NASA Cites Jet Noise Reduction Gains”, Aviation Week and Space Technology – April 19, 1972.

Tab 8.13 “How Noisy Are the Widebodies?”

Tab 8.14 “Aircraft Noise”, MOT U.K. Newsletter.

Tab 8.15 “Aircraft Noise – Quiet Engine Development and Retrofit”. Remarks by the Associate Administrator, NASA – May 16, 1972.

Tab 11.1 The Impact of STOL on the Toronto Area Airports System – July 11, 1972.

Tab 11.2 An Assessment of STOL Technology – November 1970.

Tab 11.3 STOL Aircraft Future Trends – May 1971.

Tab 11.4 STOL Transportation System Planning – May 1971.

Tab 11.5 V/STOL Community Annoyance due to Noise: Proposed Indices and Levels – March 1972.

Tab 11.6 A Review and Analysis of STOL Systems Technology – April 1970.

Tab 11.7 Preliminary Report Concerning the Possible Noise Certification of STOL Aircraft – November, 1971.

Tab 11.8 Canada’s STOL Program – A progress Report, with attachment, October, 1971.

Tab 12.1 New Ground Transportation Technology and The New Toronto Airport – May 4, 1972.

Tab 12.2 Advanced Ground Transportation Technology and the New Toronto Airport – July 11, 1972.

Tab 12.3 Intercity Passenger Transport Study – September 1970.

Tab 12.4 Intercity Passenger Transport Study: Tracked

Air Cushion Vehicles in the Canadian Corridor — Edited March 1971.

Tab 12.5 Intercity Passenger Transport Study. Operating Costs for Conventional and STOL Aircraft — prepared November 1971.

Tab 17.1 Toronto II Airport Size Alternatives — February 11, 1971.

Tab 18.1 People, Malton, and the New Toronto Airport, June 12, 1972.

- (b) **Exhibit 107** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.4 A Study Outline to Determine the Location of a Site For a Second Airport to serve Metropolitan Toronto — 1969.

Tab 1.5 Progress Report on Expansion of Major Airport Facilities in the Toronto Region — Department of Transport — May 30, 1969.

Tab 1.6 Working Paper — October 21, 1967.

Tab 1.21 Confidential Progress Report — August 20, 1971: Definition of Site Envelopes — Southwest and Northeast Airport Sites — Toronto Area Airports Project, Canadian Air Transportation Administration, Ministry of Transport.

Tab 1.22 Report of Preliminary Evaluation of Proposed Major Airport to Northeast of Toronto.

Tab 1.25 Presentation Panels and Explanatory Notes — prepared by the Toronto Area Airports Project: The Three Airport System.

Tab 13.1 Toronto II — Site Evaluation Methodology, March 1972.

Tab 13.3 Aircraft Noise and the New Toronto Airport, May 4, 1972.

Tab 13.12 Preliminary Evaluation of Soils, Materials, Water Supply and Sewage Disposal for site Selection, September 26, 1969.

Tab 13.25 Toronto II Airport Noise Lands Study, Land Economics Segment, March 23, 1970.

Tab 13.26 Provision of Advice and Assistance in the Evaluation of ATC Factors affecting the Choice of Site for a New Toronto Airport — May, 1970.

Tab 16.1 Land Acquisition — April, 1970.

Tab 16.2 Land Mechanics Report — December, 1970.

Tab 16.3 Land Management Report — July, 1971.

Tab 18.2 People and the New Toronto Airport, June 30, 1972.

- (c) **Exhibit 4** (of the Airport Inquiry Commission) being the following Provincial Documents:

(1) Provincial Document IA — Ontario Government Pickering Airport Site.

(2) Provincial Document IB — Statement to Legislature by W.D. McKeough — June 6, 1972.

(3) Provincial Document IX — Summary Report on Status of Airport Planning — Toronto II.

- (d) **Exhibit 108** (of the Airport Inquiry Commission) being the following Provincial Documents:

(1) Provincial Document IV — Regional Impact of the New Toronto International Airport (The Hodge Report).

(2) Provincial Document V — Submission to the Government of Canada with Respect to Location of the Second International Airport.

(3) Provincial Document XII — Proposed Toronto II Environmental Impact Study.

- (e) **Exhibit 5** (of the Airport Inquiry Commission) being verbatim testimony before J.W. Swackhamer, Q.C., Documents HT I to HT XII.

- (f) **Exhibit 6** (of the Airport Inquiry Commission) Exhibits 1 to 87 presented before J.W. Swackhamer, Q.C., at his hearings held pursuant to the *Expropriation Act*, namely:

**Exhibit No.**

**(Swackhamer) Title**

- |   |   |
|---|---|
| 1 | Order of the Minister of Public Works dated November 8, 1972. |
|---|---|

- 2 Appointment made by the Attorney General of Canada dated November 9, 1972.
- 3 Notice of Public Hearing dated November 15, 1972.
- 4 Notices published in the News Advertiser, Toronto Daily Star, Toronto Globe and Mail, the Toronto Sun and the Markham Economist
- 5 Report by L. Almack — Analysis of the Decision.
- 6 Map of Metropolitan Toronto, N.T.I.A. Pickering, Cedarwood Townsite and Provincial Land Use Freeze
- 7 Paper entitled "Pickering, the Toronto II Airport and North Pickering Development" by K. Fallis
- 8 ARDA Land Classification Map.
- 9 Article from Toronto Daily Star by G. Hodge
- 10 Booklet "Ontario Economic Review" May/June 1972
- 11 Summary by P. Oehm
- 12 Press Release by W.D. McKeough
- 13 "Design for Development: TCR Concept" May 1970
- 14 "Design for Development: Status Report on TCR by W.D. McKeough" August 1971
- 15 Strok Report "A Physical Development Study of Selected Urban Centres for New T.I.A."
- 16 Newspaper clipping November 27, 1972 Toronto Daily Star



- 16a Speech entitled "Canadian Air Transportation Administration — Its Philosophy and Its Framework for the Future" by W.H. Huck
- 16b Speech July 1971 at Calgary Conference
- 16c "STOL Aircraft in Future Transport System" by E.E. Marshall
- 16d "Future of Aeronautics" September 1971 by John Allen
- 17 Newspaper clipping January 1972
- 18 Newspaper clipping June 12, 1972
- 19 Memorandum by P. Creighton, F.C.A.
- 19a Brief by W. Draper
- 20 Submission by W. Baird
- 21 Memorandum from Environmental Law Association re: Nora Geraghty
- 21a Analysis by B. Buckles
- 21b "Catchment" Area speech June 1972 by Mr. Davis.
- 22 Airport Need Summary
- 23 Notes for an address by the Honourable Don Jamieson, Minister of Transport to the York County and District Real Estate Board at Aurora, Ontario, June 14, 1972
- 24 Objections of Town of Whitchurch-Stouffville to Expropriation of Lands for an Airport in Pickering November 1972
- 25 Map of Whitchurch-Stouffville
- 26 Letter to the Minister of Public Works from the Leader of the Opposition
- 27 Map of Whitchurch-Stouffville filed by Mr. Stevens November 30
- 28 Map of Town of Whitchurch-Stouffville
- 29 Map of New International Airport at Montreal (Ste. Scholastique)

- 30 Polls and votes within Whitchurch-Stouffville Area.
- 31 List of members of the Metropolitan Toronto Airport Review Committee
- 32 Booklet entitled "Hercules Amphibian"
- 33 Globe and Mail articles by Mr. Gellmar (two)
- 34 Department of Transport publication entitled "Passenger and Cargo Forecasts including Methodology for the Toronto Area Airports System" April 2, 1972.
- 35 Notice of Objections of Mr. T.J.F. Lash
- 36 Article entitled "Magnetic Levitation for Guided Ground Transport" Engineering Digest, October 1972
- 37 Paper by Dr. Norman Pearson entitled "The Great Lakes as a Human Resource"
- 38 Letter of June 30 to Mr. Lash from Mr. Jack Davis, Minister of Environment
- 39 Reproduction of article in Toronto Star, April 30
- 40 Document published by Environmental Law Research Foundation entitled "Public Rights and Environmental Planning", January 1972.
- 41 Land Use Dynamics Toronto II Airport Study
- 42 Bound Volume entitled "Aquaport Systems International"
- 43 Map of southern Ontario and northern New York State showing Aquaport location
- 44 Brief prepared by J.C. Crang entitled "The Unexplored Option"

- 45 Publication entitled "Offshore Airport Concepts"
- 46 Brief of Town Planning Institute of Canada, July 1972
- 47 Map entitled "Size and Effects on Toronto of Proposed 2'nd Airport and Cedarwood Development"
- 48 "The Third London Airport — The Process of Decision" article by Prof. D. Keith-Lucas, Canadian Aeronautics and Space Journal, January 1972
- 49 Regional Airport System Study of the Association of Bay Area Governments
- 49a Association of Bay Area Governments publication "Aviation Future"
- 50 Report dated October 1971 entitled "Participation and Liberal Democratic Government"
- 51 "Towards a new Urban Politics" by Dr. N. Harvey Lithwick
- 52 Metropolitan Toronto Transportation Plan Review Public Participation Program
- 53 Memorandum to W. Wronski, Metro Commissioner of Planning
- 54 Notice of Objections of Trans-Canada Pipelines Limited
- 55 Sketch Map showing location of pipeline and meter station
- 56 Brief prepared by J.M. Duggan
- 57 Document entitled "A Further Notice on the Need for a Second Toronto Airport-Appendix 3"
- 58 Notes prepared by Mr. Green.
- 59 Brief of Warchester Investments Ltd. together with survey

- 60 Map outlining Regional Municipality of York
- 60a Submission from Regional Municipality of York
- 61 Minute No. 58 and No. 189 of the Council of the Regional Municipality of York
- 62 Document headed "Town of Whitchurch-Stouffville Zoning By-Law" January 1972
- 63 Two page article from Toronto Daily Star of February 20, 1971, headed "Orangeville Area Favoured by Ottawa for new Airport".
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- 65 Notice of Intention to Expropriate Whitchurch-Stouffville
- 66 Notice of Intention to Expropriate in Townships of Pickering and Uxbridge
- 67 Document entitled "Opinions Proposed-Toronto II Airport-Survey of Toronto Area Candidates for the Federal Election"
- 68 Paper entitled "Proposed Pickering Airport — Opinions of Toronto Area MP's Elected October 30, 1972"
- 69 Submission of Miss Ellen Adams
- 70 Article by Captain Desmarais
- 71 Brief of Richard James
- 72 Written submission of Mr. Brian Buckles, "Why Expropriation Now?"
- 73 Photograph of the Miller House
- 74 Submission of Mrs. Kathleen Strike
- 75 Letter from the Secretary of Board of Trustees of the Brunswick Cemetery

- 76 Letter of H and Y Developments Ltd., Felray Investments Ltd., undated addressed to Right Hon. Mr. Trudeau
- 77 Letter of Objection from Mr. H.A. Harcourt dated December 6, 1972
- 78 Statement of Mr. Mitchell
- 79 Circular from egg-laying contest in Montreal 1938
- 80 Submission by Mr. Ritchie with attachments
- 81 Judge Terence Moore's brief, together with the exhibits attached thereto.
- 82 Submission by Thelma Robinson, four pages undated
- 83 Submission by Mr. Terry H. Erhart, two pages dated October 30, 1972.
- 84 Letter from Mr. P.W.J. Mingay to Mr. J.W. Swackhamer dated December 7, 1972.
- 85 Two letters from the Douglas Page family dated November 20, 1972.
- 86 Letter from Mr. and Mrs. Harold Lewis, with attachments.
- 87 Commentary by Mr. Allen R. Graham to slide presentation.

(g) **Exhibit 7** (of the Airport Inquiry Commission) being:

- A2 Forecasts of General Aviation for the Toronto Region, January 1973.
- A3 Aerodrome Standards, Physical Characteristics and Zoning Requirements, December 1973.
- A13 House of Commons Debates: Official Report, Tuesday, January 30, 1973. — Statement by The Honourable Jean Eudes Dubé, Minister of Public Works, to the House of Commons (page 765) —

Statement by Transport Minister, The Honourable Jean Marchand on "The Site Selection for a Second Toronto-Centred Region International Airport". (page 812).

A16 A Study of the Toronto Island Airport to determine its Potential as a Civic Aviation Airport and its Potential for STOL Operations, (No. 168), July 1972.

A19 Passenger Distribution and Airport Assignment Study Phase II Stage 2 Airport Roles, April 1972.

A22 Federal Aviation Regulations, Volume III. Part 36, Noise Standards: Aircraft Type Certification, December 1, 1969.

A27 An Assessment of STOL Technology, July 1970 (CTC 1970)

(h) **Exhibit 8** (of the Airport Inquiry Commission) being:

C 1 Land Use in the Vicinity of Airports, revised 1972.

C 2 New Housing and Airport Noise: A Supplement to the Site Planning Handbook by C.M.H.C., revised 1972.

C 3 Noise Exposure Forecasts: Evolution, Evaluation, Extensions and Land Use Interpretations, August 1970.

B. "Other" evidence.

(a) **Witnesses**

<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
Bickley,	Apr	1453	110,
John	8		111
Crothers,	Apr	1499	120,
W.F.	8		121,
			107,
			122,
			213



<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
	Apr 9	1691 (c.e. Waterman)	none
		1715 (c.e. Mingay)	none
Potvin, L.G.	Apr 11	1994	283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298
Robinson, T.	Apr 10	1740	140
(b) Documentary (being Exhibits 107, 110, 111, 120, 121, 122, 123, 140, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297 and 298 of the Airport Inquiry Commission).			
(1) <b>Exhibit 107</b> (of the Airport Inquiry Commission) Tabs. 1.4, 1.6, 1.20, 1.21, 1.22, 1.25, 13.1, 13.2, 13.3, 13.6, 13.7, 13.8, 13.9, 13.10, 13.11, 13.12, 13.13, 13.14, 13.15, 13.16, 13.17, 13.18, 13.19, 13.21, 13.22, 13.24, 13.25, 13.26, 13.28, 13.31, 13.32, 13.33, 13.34, 13.35, 13.36, 13.37, 13.39, 13.40, 13.41, 13.42, 13.43, 13.44, 13.46, 13.47, 16.1, 16.2, 16.3, 18.2, 18.3, 18.4, 18.5, 18.8, 18.9, 18.10, 18.11, 18.12, 18.13, 18.14, 18.15, 18.16,			
(2) <b>Exhibit 110</b> (of the Airport Inquiry Commission) Statement of New Airport Now.			

- (3) **Exhibit 111** (of the Airport Inquiry Commission) Map of Pickering area.
- (4) **Exhibit 120** (of the Airport Inquiry Commission) Submission of Mr. Crothers AIC-139
- (5) **Exhibit 121** (of the Airport Inquiry Commission) Document published by Transport Canada entitled "A Plan for the Future-the New Toronto International Airport, Pickering".
- (6) **Exhibit 122** (of the Airport Inquiry Commission) Document entitled "Aircraft Noise Ratings for Residential Areas".
- (7) **Exhibit 123** (of the Airport Inquiry Commission) Letter of March 24, 1974 from Eugene Whelan to Mr. Crothers.
- (8) **Exhibit 140** (of the Airport Inquiry Commission) Preliminary statement AIC-107.
- (9) **Exhibit 283** (of the Airport Inquiry Commission) Document B-45, "Runway Concept Evaluation, New Toronto International Airport"
- (10) **Exhibit 284** (of the Airport Inquiry Commission) Aerial mosaic of airport site and surrounding area.
- (11) **Exhibit 285** (of the Airport Inquiry Commission) Sketch entitled "Representative 4 Runway Layout".
- (12) **Exhibit 286** (of the Airport Inquiry Commission) NTIA Runway Development Zone.
- (13) **Exhibit 287** (of the Airport Inquiry Commission) Chart entitled "Runway Criteria Selection Criteria".
- (14) **Exhibit 288** (of the Airport Inquiry Commission) Definition of Ultimate Runway Systems.
- (15) **Exhibit 289** (of the Airport Inquiry Commission) Chart entitled "Planning Factors".
- (16) **Exhibit 290** (of the Airport Inquiry Commission) Chart entitled "Proposed Phasing of Concepts".
- (17) **Exhibit 291** (of the Airport Inquiry Commission) Panel entitled "Initial Phase".
- (18) **Exhibit 292** (of the Airport Inquiry Commission) Panel entitled "Option 1".

- (19) **Exhibit 293** (of the Airport Inquiry Commission) Panel entitled “Option 2”.
  - (20) **Exhibit 294** (of the Airport Inquiry Commission) Panel entitled “Archaeological Sites”.
  - (21) **Exhibit 295** (of the Airport Inquiry Commission) Panel entitled “NEF Contours, NTIA Pickering, 1985, Scenario ‘G’”.
  - (22) **Exhibit 296** (of the Airport Inquiry Commission) Panel entitled “NEF Contours NTIA Pickering, 1990, all traffic and all aircraft assumed to meet FAR-36 regulations”.
  - (23) **Exhibit 297** (of the Airport Inquiry Commission) Panel entitled “Noise Exposure Forecasts (NEF) Envelope”.
  - (24) **Exhibit 298** (of the Airport Inquiry Commission) Panel entitled “Matrix of Runway Concepts”.
4. Evidence relating to Question 1. (b)(ii) in the *Order in Council* P.C. 1973-3026 which was categorized as Phase 1, Question 3B (1) by the Commission in its Schedule of Hearings.
- A. “Old” evidence (being Exhibits 3, 4, 5, 6, 108 and 7 of the Airport Inquiry Commission).
  - (a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).
    - Tab 1.3 Outline Conceptual Plan, Toronto International Airport – 1969.
    - Tab 1.7 Review of Reports prepared for Toronto Planning Team, dated May 11, 1970.
    - Tab 1.8 Toronto Airport Planning – Position Paper – Toronto Airport Planning Team (APY), Canadian Air Transportation Administration, Ministry of Transport – May 1970.
    - Tab 1.9 Toronto Airport Planning – Position Paper – Toronto Airport Planning Team (APY), Canadian Air Transportation Administration, Ministry of Transport, August 1970.
    - Tab 1.10 Letter to Mr. D.R. Hemming, Director, Planning & Research, Air, Department of Transport, from

Hans Blumenfeld, Planning Consultant, Toronto, dated August 17, 1970. (Review of August 1970 Position Paper).

Tab 1.11 Second Toronto Airport, Site Evaluation — Technical Report — Toronto Airport Planning Team, Canadian Air Transportation Administration, Ministry of Transport — September 1970.

Tab 1.12 Strategy Paper Relating Aviation Systems to Broad Policies and Programs of Public and Private Sectors, dated 8 September 1970.

Tab 1.13 Toronto Area Airports System Plan — First Strategy Assignment — September 1970.

Tab 1.14 Letter Report dated September 30, 1970. Relating to Financial Strategies.

Tab 1.15 Second Assignment — Financial Strategies, October 1970.

Tab 1.16 Tap System Analysis — February 1971 (Summary of steps in on going work on the aviation plan).

Tab 1.18 Toronto Area Airports Project — Financial Planning Report One — July 1971.

Tab 1.23 Toronto Area Aviation Systems — Progress Report — September 14, 1971.

Tab 1.26(a) Financial Planning Report Two — Ministry of Transport, Canadian Air Transportation Administration, Toronto Area Airports Project, December 1971.

Tab 1.27 Toronto Area Aviation System: Presentation — January 28, 1972.

Tab 2.11 Ground Transportation Travel Surveys — August 1969.

Tab 9.1 Toronto International Airport — Malton: Development Planning, Toronto Area Airports System, Transport Canada, March 1972.

Tab 12.1 New Ground Transportation Technology and the New Toronto Airport — May 4, 1972.

Tab 12.2 Advanced Ground Transportation Technology and the new Toronto Airport — July 11, 1972.

Tab 12.3 Intercity Passenger Transport Study — September 1970.

Tab 12.4 Intercity Passenger Transport Study. Tracked Air Cushion Vehicles in the Canadian Corridor — edited March 1971.

Tab 13.5 Ground Transportation to the new Toronto Airport, May 4, 1972.

Tab 13.23 Documentation of Cost Data, June 1971.

Tab 13.29 Ground Transportation Cost Analysis, Alternative Airport Systems — February 1972.

Tab 13.45 Toronto II; Downtown and Malton Passenger Processing — March 1971.

Tab 17.1 Toronto II Airport Size Alternatives — February 11, 1971.

- (b) **Exhibit 107** (of the Airport Inquiry Commission) being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.4 A Study Outline to Determine the Location of a Site for a Second Airport to serve Metropolitan Toronto — 1969.

Tab 1.6 Working Paper, dated October 21, 1967.

Tab 1.20 Toronto Airport II Site Evaluation Report — Beverly and Pickering Township Sites — June 30, 1971.

Tab 1.21 Confidential Progress Report — August 20, 1971. Definition of Site Envelopes — Southwest and Northeast Airport Sites — Toronto Area Airports Project, Canadian Air Transportation Administration, Ministry of Transport.

Tab 1.25 Presentation Panels and Explanatory Notes — prepared by the Toronto Area Airports Project — The Three Airport System.

Tab 13.1 Toronto II — Site Evaluation Methodology, March 1972.

Tab 13.2 Financial Implications of the New Toronto Airport, May 30, 1972.

Tab 13.12 Preliminary Evaluation of Soils, Materials,

Water Supply and Sewage Disposal for Site Selection, September 26, 1969.

Tab 13.13 Preliminary Evaluation of Soils, Materials, Water Supply and Sewage Disposal for Site Selection — Addendum No. 1. — October 16, 1969.

Tab 13.14 Report on Evaluation of Four Alternative Sites for Toronto Airport II, April 1970.

Tab 13.19 Report on Ground Transportation Requirements, April 1970.

Tab 13.22 Sensitivity Analysis of the Relative Costs of Sites for the New Toronto Airport, June 1971.

Tab 13.24 Land Use Planning Segment of Toronto II Airport Noise Land Study, February 13, 1970.

Tab 13.28 A Study of Toronto Airport II Ground Transportation to year 2000 — November 1970.

Tab 13.46 Regional Impact of a new International Airport for Toronto — March 1970.

Tab 18.8 Manual of Design and Construction Practices ILS Site Surveys, April 1966.

Tab 18.9 ILS Site Selection, November 1967, with amendment, August 6, 1968.

Tab 18.10 Terminal Area Radar Systems Siting Criteria, December 1968.

Tab 18.11 Establishment and Commissioning of Non-Directional Beacons, January 1970, with amendment, April 21, 1970.

Tab 18.12 VOR Site Selection, May 1970.

Tab 18.13 VHF Doppler DF Site Selection, July 1970; Amendment No. 3, March 25, 1971.

Tab 18.14 Siting of new Weather Radars, CBE, June 1972.

Tab 18.15 DME Siting with ILS Facilities.

Tab 18.16 SSR Siting Criteria, January 15, 1970.

- (c) **Exhibit 4** (of the Airport Inquiry Commission) being the following Provincial Documents:

(1) Provincial Document I A — Ontario Government Pickering Airport Site.



- (2) Provincial Document I B — Statement to Legislature by W.D. McKeough June 6, 1972.
- (3) Provincial Document IX — Summary Report on Status of Airport Planning — Toronto II.
- (d) **Exhibit 108** (of the Airport Inquiry Commission) being the following Provincial Documents:
  - (1) Provincial Document V — Submission to the Government of Canada with respect to Location of the second International Airport.
  - (2) Provincial Document XI — Ground Transportation Review of Sites E and F.
- (e) **Exhibit 5** (of the Airport Inquiry Commission) being verbatim testimony before J.W. Swackhamer, Q.C., documents HT I to HT XII.
- (f) **Exhibit 6** (of the Airport Inquiry Commission) being Exhibits 1 to 87 presented before J.W. Swackhamer, Q.C., at his hearings held pursuant to the *Expropriation Act*, namely:

**Exhibit No.**

**(Swackhamer) Title**

1	Order of the Minister of Public Works dated November 8, 1972
2	Appointment made by the Attorney General of Canada dated November 9, 1972
3	Notice of Public Hearing dated November 15, 1972.
4	Notices published in the News Advertiser, Toronto Daily Star, Toronto Globe and Mail, the Toronto Sun and the Markham Economist
5	Report by L. Almack — Analysis of the Decision.
6	Map of Metropolitan Toronto, N.T.I.A. Pickering, Cedarwood Townsite and Provincial Land Use Freeze
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- 17 Newspaper clipping January 1972
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- 24 Objections of Town of Whitchurch-Stouffville to Expropriation of Lands for an Airport in Pickering November 1972
- 25 Map of Whitchurch-Stouffville
- 26 Letter to the Minister of Public Works from the Leader of the Opposition
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- 35 Notice of Objections of Mr. T.J.F. Lash
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- 37 Paper by Dr. Norman Pearson entitled

- “The Great Lakes as a Human Resource”
- 38 Letter of June 30 to Mr. Lash from Mr. Jack Davis, Minister of Environment
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- 47 Map entitled “Size and Effects on Toronto of Proposed 2<sup>nd</sup> Airport and Cedarwood Development”
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- “Participation and Liberal Democratic Government”
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- 60a Submission from Regional Municipality of York
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- 67 Document entitled "Opinions Proposed-  
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port-Opinions of Toronto Area MP's  
Elected October 30, 1972
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Trustees of the Brunswick Cemetery
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treal in 1938
- 80 Submission by Mr. Ritchie with  
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with the exhibits attached thereto.
- 82 Submission by Thelma Robinson, four  
pages undated



- 83 Submission by Mr. Terry H. Erhart, two pages dated October 30, 1972.
- 84 Letter from Mr. P.W.J. Mingay to Mr. J.W. Swackhamer dated December 7, 1972.
- 85 Two letters from the Douglas Page family dated November 20, 1972.
- 86 Letter from Mr. and Mrs. Harold Lewis, with attachments.
- 87 Commentary by Mr. Allen R. Graham to slide presentation.

(g) **Exhibit 7** (of the Airport Inquiry Commission) being:

- A 3 Aerodrome Standards, Physical Characteristics and Zoning Requirements, December 1973.
- A 8 Toronto Commuter Rail Study, November 1972.
- A 9 Expansion of Aviation Systems for Toronto and southwestern Ontario: Ministry of Transport Releases, March 2, 1972.
- A11 Revolving Fund Authority, January 1970, March 1971.
- A13 House of Commons Debates: Official Report, Tuesday, January 30, 1973  
Statement by The Honourable Jean Eudes Dubé, Minister of Public Works, to the House of Commons (page 765)  
Statement by Transport Minister The Honourable Jean Marchand on "The Site Selection for a second Toronto-Centred Region International Airport" (page 812)
- A21 An Urban Transportation Policy for Ontario, November 22, 1972. Statement by The Honourable William G. Davis, Premier of Ontario.

B "Other evidence

(a) **Witnesses**

<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
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Ross, D.	22 April	3113	439,442
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(b) Documentary (being Exhibits 439, 440, 441 and 442 of the Airport Inquiry Commission).

(1) **Exhibit 439** (of the Airport Inquiry Commission) Graph entitled "Typical Graph of Relative Trip Rates, Super Zone H – Domestic Long Haul Sector".

(2) **Exhibit 440** (of the Airport Inquiry Commission) Panel entitled, "Southwestern Ontario Airports Forecasts of Originating/Terminating Passengers (in thousands)."

(3) **Exhibit 441** (of the Airport Inquiry Commission) Panel entitled, "Percentages of Originating/Terminating Passengers Lost from Toronto Area Airports System as a Result of Expanding Southwestern Ontario Airports – Based on January 1972 Forecast."

(4) **Exhibit 442** (of the Airport Inquiry Commission) Panel entitled, "Estimated Originating/Terminating Patronage Showing Upper and Lower Bounds."

5. Evidence relating to Question 1. (b)(iii) in the *Order in Council* P.C. 1973-3026 which was categorized as Phase 1, Question 2 (2) by the Commission in its Schedule of Hearings.

A "Old" evidence (being Exhibits 3, 107, 108, 5, 6, 7 and 109 of the Airport Inquiry Commission).

(a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.7 Review of reports prepared for Toronto Planning Team, dated May 11, 1970.

Tab 1.11 Second Toronto Airport, Site Evaluation – Technical Report – Toronto Airport Planning Team, Canadian Air Transportation Administration, Ministry of Transport – September 1970.

Table 13.20 Transportation Study, Alternative Site Locations, April 22, 1970.

Tab 13.27 Toronto International Airport System (Economic Analysis) 1970 – 1990 – October 1970.

- (b) **Exhibit 107** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 13.1 Toronto II – Site Evaluation Methodology, March 1972.

Tab 13.6 Land Use and the New Toronto Airport, May 4, 1972.

Tab 13.11 Farming and the New Toronto Airport, April 21, 1972.

Tab 13.12 Preliminary Evaluation of Soils, Materials, Water Supply and Sewage Disposal for Site Selection, September 26, 1969.

Tab 13.24 Land Use Planning Segment of Toronto II Airport Noise Land Study, February 13, 1970.

Tab 13.25 Toronto II Airport Noise Lands Study, Land Economics Segment, March 23, 1970.

Tab 13.43 The Economic Impact of the New Toronto Airport – April 20, 1972.

Tab 13.46 Regional Impact of a New International Airport for Toronto – March 1970.

Tab 13.47 Some Economic Benefits and the Regional Impact of the Design for Aviation of the Toronto-Centred Region – February 1971.

Tab 18.2 People and the New Toronto Airport, June 30, 1972.

- (c) **Exhibit 108** (of the Airport Inquiry Commission) being the following Provincial Documents:

(1) Provincial Document IV – Regional Impact of the New Toronto International Airport (The Hodge Report)

(2) Provincial Document V – Submission to the Government of Canada with Respect to Location of the Second International Airport.

(3) Provincial Document X – Review of Proposed Airport Sites E and F – Regional Development Plan.

- (d) **Exhibit 5** (of the Airport Inquiry Commission) being the

verbatim testimony before J.W. Swackhamer, Q.C., documents HT I to HT XII.

- (e) **Exhibit 6** (of the Airport Inquiry Commission) being Exhibits 1 to 87 presented before J.W. Swackhamer, Q.C., at his hearings held pursuant to the *Expropriation Act*, namely:

**Exhibit No.**

**(Swackhamer) Title**

- |    |   |
|----|---|
| 1  | Order of the Minister of Public Works dated November 8, 1972  |
| 2  | Appointment made by the Attorney General of Canada dated November 9, 1972   |
| 3  | Notice of Public Hearing dated November 15, 1972  |
| 4  | Notices published in the News Advertiser, Toronto Daily Star, Toronto Globe and Mail, the Toronto Sun and the Markham Economist |
| 5  | Report by L. Almack — Analysis of the Decision.   |
| 6  | Map of Metropolitan Toronto, N.T.I.A. Pickering, Cedarwood Townsite and Provincial Land Use Freeze                              |
| 7  | Paper entitled "Pickering, the Toronto II Airport and North Pickering Development" by K. Fallis                                 |
| 8  | ARDA Land Classification Map  |
| 9  | Article from Toronto Daily Star by G. Hodge   |
| 10 | Booklet "Ontario Economic Review" May/June 1972   |
| 11 | Summary by P. Oehm  |
| 12 | Press Release by W.D. McKeough  |
| 13 | "Design for Development: TCR Concept" May 1970  |

- 14 "Design for Development: Status Report on TCR by W.D. McKeough" August 1971
- 15 Strok Report "A Physical Development Study of Selected Urban Centres for New T.I.A."
- 16 Newspaper clipping November 27, 1972 Toronto Daily Star
- 16a Speech entitled "Canadian Air Transportation Administration — Its Philosophy and Its Framework for the Future" by W.H. Huck
- 16b Speech July 1971 at Calgary Conference
- 16c "STOL Aircraft in Future Transport System" by E.E. Marshall
- 16d "Future of Aeronautics" September 1971 by John Allen
- 17 Newspaper clipping January 1972
- 18 Newspaper clipping June 12, 1972
- 19 Memorandum by P. Creighton, F.C.A.
- 19a Brief by W. Draper
- 20 Submission by W. Baird
- 21 Memo from Environmental Law Association: Nora Geraghty
- 21a Analysis by B. Buckles
- 21b "Catchment" Area speech June 1972 by Mr. Davis.
- 22 Airport Need Summary
- 23 Notes for an Address by the Honourable Don Jamieson, Minister of Transport to the York County and District Real Estate Board at Aurora, Ontario, June 14, 1972
- 24 Objections of Town of Whitchurch-Stouffville to Expropriation of Lands for an Airport in Pickering November 1972

- 25 Map of Whitchurch-Stouffville
- 26 Letter to the Minister of Public Works from the Leader of the Opposition
- 27 Map of Whitchurch-Stouffville filed by Mr. Stevens November 30
- 28 Map of Town of Whitchurch-Stouffville
- 29 Map of New International Airport at Montreal (Ste. Scholastique)
- 30 Polls and votes within Whitchurch-Stouffville Area.
- 31 List of members of the Metropolitan Toronto Airport Review Committee
- 32 Booklet entitled "Hercules Amphibian"
- 33 Globe and Mail articles by Mr. Gellmar (two)
- 34 Department of Transport publication entitled "Passenger and Cargo Forecasts including Methodology for the Toronto Area Airports System" April 2, 1972.
- 35 Notice of Objections of Mr. T.J.F. Lash
- 36 Article entitled "Magnetic Levitation for Guided Ground Transport" Engineering Digest, October 1972
- 37 Paper by Dr. Norman Pearson entitled "The Great Lakes as a Human Resource"
- 38 Letter of June 30 to Mr. Lash from Mr. Jack Davis, Minister of Environment
- 39 Reproduction of article in Toronto Star, April 30
- 40 Document published by Environmental Law Research Foundation entitled "Public Rights and Environmental Planning", January 1972.
- 41 Land Use Dynamics Toronto II Airport Study



- 42 Bound Volume entitled "Aquaport Systems International"
- 43 Map of southern Ontario and northern New York State showing Aquaport location
- 44 Brief prepared by J.C. Crang entitled "The Unexplored Option"
- 45 Publication entitled "Offshore Airport Concepts"
- 46 Brief of Town Planning Institute of Canada, July 1972
- 47 Map entitled "Size and Effects on Toronto of Proposed 2'nd Airport and Cedarwood Development"
- 48 "The Third London Airport — The Process of Decision" article by Prof. D. Keith-Lucas, Canadian Aeronautics and Space Journal, January 1972
- 49 Regional Airport System Study of the Association of Bay Area Governments
- 49a Association of Bay Area Governments publication "Aviation Future"
- 50 Report dated October 1971 entitled "Participation and Liberal Democratic Government"
- 51 "Towards a new Urban Politics" by Dr. N. Harvey Lithwick
- 52 Metropolitan Toronto Transportation Plan Review Public Participation Program
- 53 Memorandum to W. Wronski, Metro Commissioner of Planning
- 54 Notice of Objections of Trans-Canada Pipelines Limited
- 55 Sketch Map showing location of pipelines and meter station

- 56 Brief prepared by J.M. Duggan
- 57 Document entitled "A Further Note on the Need for a Second Toronto Airport-Appendix 3"
- 58 Notes prepared by Mr. Green.
- 59 Brief of Warchester Investments Ltd. together with survey
- 60 Map outlining Regional Municipality of York
- 60a Submission from Regional Municipality of York
- 61 Minute No. 58 and No. 189 of the Council of The Regional Municipality of York
- 62 Document headed "Town of Whitchurch-Stouffville Zoning By-Law" January 1972
- 63 Two page article from Toronto Daily Star of February 20, 1971, headed "Orangeville Area Favoured by Ottawa for new Airport".
- 64 Acknowledgement of receipt of Objection of Regional Municipality of York dated November 6, 1972
- 65 Notice of Intention to Expropriate Whitchurch-Stouffville
- 66 Notice of Intention to Expropriate in Townships of Pickering and Uxbridge
- 67 Document entitled "Opinions Proposed-Toronto II Airport-Survey of Toronto Area Candidates for the Federal Election"
- 68 Paper entitled "Proposed Pickering Airport Opinions of Toronto Area MP's Elected October 30, 1972
- 69 Submission of Miss Ellen Adams
- 70 Article by Captain Desmarais

- 71 Brief of Richard James
- 72 Written submission of Mr. Brian Buckles,  
“Why Expropriation Now?”
- 73 Photograph of the Miller House
- 74 Submission of Mrs. Kathleen Strike
- 75 Letter from the Secretary of Board of  
Trustees of the Brunswick Cemetery
- 76 Letter of H and Y Developments Ltd.,  
Felray Investments Ltd., undated ad-  
dressed to Right Hon. Mr. Trudeau
- 77 Letter of Objection from Mr. H.A. Har-  
court dated December 6, 1972
- 78 Statement of Mr. Mitchell
- 79 Circular from egg-laying contest in Mon-  
treal in 1938
- 80 Submission by Mr. Ritchie with  
attachments
- 81 Judge Terence Moore’s brief, together  
with the exhibits attached thereto.
- 82 Submission by Thelma Robinson, four  
pages undated
- 83 Submission by Mr. Terry H. Erhart, two  
pages dated October 30, 1972.
- 84 Letter from Mr. P.W.J. Mingay to Mr.  
J.W. Swackhamer dated December 7,  
1972.
- 85 Two letters from the Douglas Page fam-  
ily dated November 20, 1972.
- 86 Letter from Mr. and Mrs. Harold Lewis,  
with attachments.
- 87 Commentary by Mr. Allen R. Graham to  
slide presentation.

(f) **Exhibit 7** (of the Airport Inquiry Commission) being:

- A 5 Design for Development: The Toronto-  
Centred Region, May 1970.

- A 6 Design for Development: A Status Report on the Toronto-Centred Region, August 1970.
- A 7 Annex of Understanding agreed by the Government of Canada and the Government of Ontario, March 1, 1972.
- A13 House of Commons Debates: Official Report, Tuesday, January 30, 1973, Statement by The Honourable Jean Eudes Dubé, Minister of Public Works, to the House of Commons (page 765) Statement by Transport Minister, The Honourable Jean Marchand on "The Site Selection for a Second Toronto-Centred Region International Airport" (page 812).
- A19 Passenger Distribution and Airport Assignment Study — Phase II, Stage 2 Airport Roles, April 1972.
- (g) **Exhibit 109** (of the Airport Inquiry Commission) being:
  - A 4 Land Use Dynamics: The Toronto II Airport Study, July 1972.
  - A10 Government of Ontario Releases, March 2, 1972.
  - A12 Compilation of records of Public Support for the New Airport.
  - A18 Urban/Regional Impact of Airport Development, Report I: Calibration of the Empiric Growth Allocation Model, September 1972.

B. "Other" evidence.

(a) **Witnesses**

<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
Adams, Aileen	Apr 10	1814	152
Davies, Brenda	Apr 10	1823	153

<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
Foster, Lois	Apr 8	1459	113
Hartshorn, W.B.	Apr 10	1850	154, 154A
Lata, M.G.	Apr 10	1874	156, 156A
	Apr 10	1884 (c.e. MacOdrum)	none
		1885 (c.e. MacKinnon)	none
Searle, B.R.	Apr 10	1753	143
Spiece, Eva	Apr 10	1770	145
Willis, Derek	Apr 11	1922	276
	Apr 11	1944 (c.e. Robson)	none
		1945 (c.e. Waterman)	none
		1955 (c.e. Mingay)	277
		1956 (c.e. MacKinnon)	none
		1961 (c.e. Macaulay)	none
Winterhalt, W.H.	Apr 8	1481	116- 119
	Apr 9	1684 (c.e. Waterman)	none

*Airport Inquiry Commission Report*

Witness	Date	Transcript Page	Exhibits
		1724 (c.e. MacKinnon)	none
	Apr 10	1733	none
(b) Documentary (being Exhibits 113, 116, 117, 118, 119, 143, 145, 152, 153, 154, 154-A, 156, 156-A, 276 and 277 of the Airport Inquiry Commission).			
(1) <b>Exhibit 113</b> (of the Airport Inquiry Commission) Statement of Lois Foster.			
(2) <b>Exhibit 116</b> (of the Airport Inquiry Commission) Statement of Mr. Winterhalt, numbered AIC-70.			
(3) <b>Exhibit 117</b> (of the Airport Inquiry Commission) Official Plan of the City of Oshawa.			
(4) <b>Exhibit 118</b> (of the Airport Inquiry Commission) Sketch of Toronto-Centred Region Plan.			
(5) <b>Exhibit 119</b> (of the Airport Inquiry Commission) Introduction of OAPADS report.			
(6) <b>Exhibit 143</b> (of the Airport Inquiry Commission) Preliminary submission AIC-114.			
(7) <b>Exhibit 145</b> (of the Airport Inquiry Commission) Preliminary submission AIC-76.			
(8) <b>Exhibit 152</b> (of the Airport Inquiry Commission) Submission of Aileen Adams, AIC-140			
(9) <b>Exhibit 153</b> (of the Airport Inquiry Commission) Evidence Statement of Mrs. Brenda Davies			
(10) <b>Exhibit 154</b> (of the Airport Inquiry Commission) Evidence Statement of William B. Hartshorn.			
(11) <b>Exhibit 154-A</b> (of the Airport Inquiry Commission) Photograph of March 27, 1974 hearing at Malton from Etobicoke Guardian.			
(12) <b>Exhibit 156</b> (of the Airport Inquiry Commission) Evidence Statement of Mrs. M.G. Latta, AIC-100.			
(13) <b>Exhibit 156-A</b> (of the Airport Inquiry Commission) Two Xerox copies of News Advertiser, March 6.			
(14) <b>Exhibit 276</b> (of the Airport Inquiry Commission) AIC-189 and AIC-189A, submissions of Derek Willis.			



(15) **Exhibit 277** (of the Airport Inquiry Commission) Booklet entitled “Central York-Pickering Area Water and Sewage Systems, Project Development Branch, February, 1974, Ministry of the Environment.”

6. Evidence relating to Question 1. (b) (iv) in the *Order in Council* P.C. 1973-3026 which was categorized as Phase 1, Question 2 (3) by the Commission in its Schedule of Hearings.

A. “Old” evidence (being Exhibits 3, 107, 108, 5, 6, 7 and 109 of the Airport Inquiry Commission).

(a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.5 Progress Report on Expansion of Major Airport Facilities in the Toronto Region – Department of Transport – May 30, 1969.

Tab 1.8 Toronto Airport Planning – Position Paper – Toronto Airport Planning Team (APY), Canadian Air Transportation Administration, Ministry of Transport – May 1970.

Tab 1.9 Toronto Airport Planning – Position Paper – Toronto Airport Planning Team (APY), Canadian Air Transportation Administration, Ministry of Transport, August 1970.

Tab 1.11 Second Airport, Site Evaluation – Technical Report – Toronto Airport Planning Team, Canadian Air Transportation Administration, Ministry of Transport – September 1970.

Tab 1.13 Toronto Area Airports System Plan – First Strategy Assignment – September 1970.

Tab 1.14 Letter Report dated 30 September 1970, Relating to Financial Strategies.

Tab 1.15 Second Assignment – Financial Strategies – October 1970.

Tab 1.16 Tap System Analysis – February 1971 (Summary of steps in ongoing work on the aviation plan).

Tab 1.18 Toronto Area Airports Project – Financial Planning Report One – July 1971.

Tab 1.19 Air Passenger Distribution and Airport Assignment Study – June 1971.

Tab 1.23 Toronto Area Aviation Systems – Progress Report – September 14, 1971.

Tab 5.1 General Aviation in Toronto and the New Toronto Airport – June 29, 1972.

Tab 5.2 A Study of General Aviation in the Toronto Area – December 1968.

Tab 5.3 ATC Study of Future General Aviation Airport Development in the Toronto Area – May 1970.

Tab 5.4 General Aviation Inventory – June 1970.

Tab 12.1 New Ground Transportation Technology and the New Toronto Airport – May 4, 1972.

Tab 12.2 Advanced Ground Transportation Technology and the New Toronto Airport – July 11, 1972.

Tab 12.3 Intercity Passenger Transport Study – September 1970.

Tab 12.4 Intercity Passenger Transport Study: Tracked Air Cushion Vehicles in the Canadian Corridor – edited March 1971.

Tab 13.4 Air Quality and the New Toronto Airport, May 4, 1972.

Tab 13.5 Ground Transportation to the New Toronto Airport, May 4, 1972.

Tab 13.23 Documentation of Cost Data, June 1971.

Tab 13.29 Ground Transportation Cost Analysis, Alternative Airport Systems – February 1972.

Tab 13.30 An Analysis of Toronto International Airport System – November 1968.

Tab 13.38 A Study of Commercial Air Traffic in the Toronto Region in Regard to a Proposed Two-Airport System – July 1969.

Tab 13.45 Toronto II: Downtown and Malton Passenger Processing – March 1971.

Tab 18.7 Feasibility Study of Present and Proposed Toronto Island Airports, November 1967.

(b) **Exhibit 107** (of the Airport Inquiry Commission) (being

part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.22 Report of Preliminary Evaluation of Proposed Major Airport to Northeast of Toronto — 1971.

Tab 13.1 Toronto II —Site Evaluation Methodology, March 1972.

Tab 13.2 Financial Implications of the New Toronto Airport, May 30, 1972.

Tab 13.6 Land Use and the New Toronto Airport, May 4, 1972.

Tab 13.7 Off-Shore Airport Concepts, April 21, 1972.

Tab 13.8 Nuclear Power Plant and the New Toronto Airport, April 21, 1972.

Tab 13.9 The New Metropolitan Toronto Zoo and the New Toronto Airport, April 21, 1972.

Tab 13.10 Historical Sites and the New Toronto Airport, April 20, 1972.

Tab 13.11 Farming and the New Toronto Airport, April 21, 1972.

Tab 13.12 Preliminary Evaluation of Soils, Materials, Water Supply and Sewage Disposal for Site Selection, September 26, 1969.

Tab 13.13 Preliminary Evaluation of Soils, Materials, Water Supply and Sewage Disposal for Site Selection — Addendum No. 1, October 16, 1969.

Tab 13.14 Report on Evaluation of Four Alternative Sites for Toronto Airport II, April 1970

Tabs 13.15, 13.16, 13.17, 13.18 Preliminary Report — Water Supply and Waste Disposal — Sites A, B, C and D, February and March 1970.

Tab 13.19 Report on Ground Transportation Requirements, April 1970.

Tab 13.21 Letter Report re Land Cost Data, July 1970.

Tab 13.22 Sensitivity Analysis of the Relative Costs of Sites for the New Toronto Airport, June 1971.

Tab 13.28 A Study of Toronto Airport II Ground Transportation to Year 2000 — November 1970.

Tab 13.31 Toronto Airport II: General Soils and Materials Information for Sites A, B, C and D — November 1969.

Tab 13.32 Report: Soils and Materials Investigation, Site A — January 1970.

Tab 13.33 Volume I: Subsoil Survey, Site B — January 1970.

Tab 13.34 Volume II: Materials Survey, Site B — January 1970.

Tab 13.35 Report: Soils and Materials Investigation, Site C — December 1969.

Tab 13.36 Volume I: Soil Survey, Site D — December 1969.

Tab 13.37 Volume II: Materials Survey, Site D — December 1969.

Tab 13.39 Weather and the New Toronto Airport — June 11, 1972.

Tab 13.40 Preliminary Climatological Assessment of Potential Airport Sites in the General Vicinity of Toronto — 1968/69.

Tab 13.41 Meteorology Study — February 1970.

Tab 13.42 Birds and the New Toronto Airport — May 4, 1972.

Tab 13.44 Ecology and the New Toronto Airport — April 21, 1972.

Tab 18.2 People and the New Toronto Airport, June 30, 1972.

Tab 18.3 Expropriation Procedures, April 21, 1972.

Tab 18.4 Cemeteries and the New Toronto Airport, April 21, 1972.

Tab 18.5 Evaluation of Construction Methods for Off-Shore Airports, August 1969.

Tab 18.8 Manual of Design and Construction Practices, ILS Site Surveys, April 1966.

Tab 18.9 ILS Site Selection, November 1967, with Amendment, August 6, 1968.

Tab 18.10 Terminal Area Radar Systems Siting Criteria, December 1968.

Tab 18.11 Establishment and Commissioning of Non-Directional Beacons, January 1970 with Amendment, April 21, 1970.

Tab 18.12 VOR Site Selection, May 1970.

Tab 18.13 VHF Doppler DF Site Selection, July 1970 — Amendment No. 3, March 25, 1971.

Tab 18.14 Siting of New Weather Radars, CBE, June 1972.

Tab 18.15 DME Siting with ILS Facilities.

Tab 18.16 SSR Siting Criteria, January 16, 1970.

(c) **Exhibit 108** (of the Airport Inquiry Commission) being the following Provincial Documents:

(1) Provincial Document XI — Ground Transportation Review of Sites E and F.

(2) Provincial Document XII — Proposed Toronto II — Environmental Impact Study.

(d) **Exhibit 5** (of the Airport Inquiry Commission) being verbatim testimony before J.W. Swackhamer, Q.C., documents HT I to HT XII.

(e) **Exhibit 6** (of the Airport Inquiry Commission) being Exhibits 1 to 87 presented before J.W. Swackhamer, Q.C., at his hearings held pursuant to the *Expropriation Act*, namely

**Exhibit No.**

**(Swackhamer) Title**

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2	Appointment made by the Attorney General of Canada dated November 9, 1972
3	Notice of Public Hearing dated November 15, 1972.
4	Notices published in the News Advertiser, Toronto Daily Star, Toronto Globe

- and Mail, the Toronto Sun and the Markham Economist
- 5 Report by L. Almack — Analysis of the Decision.
- 6 Map of Metropolitan Toronto, N.T.I.A. Pickering, Cedarwood Townsite and Provincial Land Use Freeze
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- 16d “Future of Aeronautics” September 1971 by John Allen



- 17 Newspaper clipping January 1972
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- 19 Memorandum by P. Creighton, F.C.A.
- 19a Brief by W. Draper
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- 22 Airport Need Summary
- 23 Notes for an Address by the Honourable Don Jamieson, Minister of Transport to the York County and District Real Estate Board at Aurora, Ontario, June 14, 1972
- 24 Objections of Town of Whitchurch-Stouffville to Expropriation of Lands for an Airport in Pickering November 1972
- 25 Map of Whitchurch-Stouffville
- 26 Letter to the Minister of Public Works from the Leader of the Opposition
- 27 Map of Whitchurch-Stouffville filed by Mr. Stevens November 30
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- 30 Polls and votes within Whitchurch-Stouffville Area.
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- 49 Regional Airport System Study of the Association of Bay Area Governments
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- 61 Minute No. 58 and No. 189 of the Council of the Regional Municipality of York
- 62 Document headed "Town of Whitchurch-Stouffville Zoning By-Law" January 1972
- 63 Two page article from Toronto Daily Star of February 20, 1971, headed

- “Orangeville Area Favoured by Ottawa for new Airport”.
- 64 Acknowledgement of receipt of Objection of Regional Municipality of York dated November 6, 1972
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- 81 Judge Terence Moore's brief, together with the exhibits attached thereto.
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- 83 Submission by Mr. Terry H. Erhart, two pages dated October 30, 1972.
- 84 Letter from Mr. P.W.J. Mingay to Mr. J.W. Swackhamer dated December 7, 1972.
- 85 Two letters from the Douglas Page family dated November 20, 1972.
- 86 Letter from Mr. and Mrs. Harold Lewis, with attachments
- 87 Commentary by Mr. Allen R. Graham to slide presentation.

(f) **Exhibit 7** (of the Airport Inquiry Commission) being:

- A 5 Design for Development: The Toronto-Centred Region, May 1970
- A 6 Design for Development: A Status Report on the Toronto-Centred Region, August 1970.
- A13 House of Commons Debates: Official Report, Tuesday, January 30, 1973
  - Statement by The Honourable Jean Eudes Dubé, Minister of Public Works, to the House of Commons (page 765).
  - Statement by Transport Minister, The Honourable Jean Marchand on "The Site Selection for a Second Toronto-Centred Region International Airport" (page 812).
- A16 A Study of the Toronto Island Airport to Determine its Potential as a Civil Aviation Airport and its Potential for STOL Operations, (No. 168), July 1972.

(g) **Exhibit 109** (of the Airport Inquiry Commission) being:

*Airport Inquiry Commission Report*

- A 4 Land Use Dynamics: The Toronto II Airport Study, July 1972.
- A12 Compilation of records of Public Support for the New Airport.
- A15 Report on Preliminary Investigation of Bird Populations and Movements Affecting the Proposed New Toronto Airport Site, September/December 1972.
- A17 Climate of the Pickering Airport Site, September 1972.

B. "Other" evidence

(a) Witnesses

Witness	Date	Transcript Page	Exhibits
Almack, L.D.	Apr 9	1618	132- 135
	Apr 9	1678 (c.e. Waterman)	none
	Apr 8	1457	112
Dennis, M.C. Fallis, K.E.	Apr 8	1472	115
	Apr 9	1686 (c.e. Waterman)	none
		1712 (c.e. Mingay)	none
Glenn, Andrew Godfrey, Dr. C.	Apr 10	1735	139
	Apr 13	1462	114
	Apr 9	1676 (c.e. Waterman)	none



<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
		1717 (c.e. Mingay)	none
		1722 (c.e. MacKinnon)	none
Morrow, Vern	Apr 10	1862	155
Muirhead, C.T.	Apr 9	1602	130, 131
	Apr 9	1709 (c.e. Waterman)	none
Payne, B.D.	Apr 10	1812	151
Robertson, D.	Apr 10	1775	146
Salverson, Sandra	Apr 10	1744	141
Salverson, Scott	Apr 10	1749	142
Searle, M.V.	Apr 10	1758	144, 144A
Simpson, C.N.	Apr 11	1969	278- 282
Thompson, Isobel	Apr 10	1782	147
Thompson, Victor A.	Apr 8	1542	124- 128
	Apr 9	1578	129
	Apr 9	1699 (c.e. Waterman)	none
Tinti, Alva	Apr 10	1787	148

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Witness	Date	Transcript Page	Exhibits
Wanstall,	Apr	1792	149
Anne	10		
Warne,	Apr	1802	150
D.M.	10		
	Apr	1812	none
	10	(c.e. MacOdrum)	
(b) Documentary (being Exhibits 112, 114, 115, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 139, 141, 142, 144, 144-A, 146, 147, 148, 149, 150, 151, 155, 278, 279, 280, 281 and 282 of the Airport Inquiry Commission).			
(1) <b>Exhibit 112</b> (of the Airport Inquiry Commission) Statement of Monte C. Dennis.			
(2) <b>Exhibit 114</b> (of the Airport Inquiry Commission) Statement of Dr. Godfrey, numbered AIC80.			
(3) <b>Exhibit 115</b> (of the Airport Inquiry Commission) Statement by Mr. Fallis, numbered AIC72.			
(4) <b>Exhibit 124</b> (of the Airport Inquiry Commission) Preliminary Statement of V.A. Thompson.			
(5) <b>Exhibit 125</b> (of the Airport Inquiry Commission) Map of existing and potential transportation facilities in the North Pickering community.			
(6) <b>Exhibit 126</b> (of the Airport Inquiry Commission) Report to Solandt Commission by Bruce Howlett, Consultant.			
(7) <b>Exhibit 127</b> (of the Airport Inquiry Commission) Article from Globe & Mail dated September 19, 1973 "New Federal Procedures have Ruled out Airport in Pickering".			
(8) <b>Exhibit 128</b> (of the Airport Inquiry Commission) Article from Toronto Star dated August 21, 1973			
(9) <b>Exhibit 129</b> (of the Airport Inquiry Commission) Sparling Report, entitled "The Proposed Claremont National Airport Ecological Significance".			
(10) <b>Exhibit 130</b> (of the Airport Inquiry Commission) Brief of Mr. Muirhead.			
(11) <b>Exhibit 131</b> (of the Airport Inquiry Commission)			

Article from Business Week Magazine, dated March 23, 1974.

(12) **Exhibit 132** (of the Airport Inquiry Commission)  
Preliminary statement of Lorne D. Almack.

(13) **Exhibit 133** (of the Airport Inquiry Commission)  
Group of newspaper articles.

(16) **Exhibit 134** (of the Airport Inquiry Commission)  
Booklet entitled “Designating Land for Agriculture”,  
July 1973.

(17) **Exhibit 135** (of the Airport Inquiry Commission)  
Map showing potential airport site.

(18) **Exhibit 139** (of the Airport Inquiry Commission)  
Brief of Mr. Andrew Glenn.

(19) **Exhibit 141** (of the Airport Inquiry Commission)  
Preliminary statement AIC-91.

(20) **Exhibit 142** (of the Airport Inquiry Commission)  
Preliminary statement AIC-92.

(21) **Exhibit 144** (of the Airport Inquiry Commission)  
Preliminary submission AIC-108.

(22) **Exhibit 144A** (of the Airport Inquiry Commission)  
Three brochures referred to in the witness’ evidence.

(23) **Exhibit 146** (of the Airport Inquiry Commission)  
Brief of Mrs. Dianne Robinson.

(24) **Exhibit 147** (of the Airport Inquiry Commission)  
Submission of Mrs. Thompson

(25) **Exhibit 148** (of the Airport Inquiry Commission)  
Submission of Mrs. Tinti

(26) **Exhibit 149** (of the Airport Inquiry Commission)  
Submission of Anne Wanstall, AIC-141.

(27) **Exhibit 150** (of the Airport Inquiry Commission)  
Submission of D.M. Warne, AIC-102

(28) **Exhibit 151** (of the Airport Inquiry Commission)  
Brief of Brian David Payne, AIC-104.

(29) **Exhibit 155** (of the Airport Inquiry Commission)  
Evidence Statement of Vern Morrow

(30) **Exhibit 278** (of the Airport Inquiry Commission)

Diagram entitled “Representative Airway Structure — Toronto Area”.

(31) **Exhibit 279** (of the Airport Inquiry Commission) Chart entitled “Proposed Low Altitude Airway Realignment and Control Areas”.

(32) **Exhibit 280** (of the Airport Inquiry Commission) Chart entitled “Toronto International Airport Terminal Control Area and Positive Control Zone”.

(33) **Exhibit 281** (of the Airport Inquiry Commission) IFR Traffic Flow, Appendix “D” to Exhibit 11.

(34) **Exhibit 282** (of the Airport Inquiry Commission) Chart entitled “Representative Revised Airway Structure and Aircraft Routings”.

7. Evidence relating to Question 1. (b) (v) in the *Order in Council* P.C. 1973-3026 which was categorized as Phase 1, Question 3B (2) by the Commission in its Schedule of Hearings.

A. “Old” evidence (being Exhibits 3, 107, 4, 108, 5, 6 and 7 of the Airport Inquiry Commission).

(a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.3 Outline Conceptual Plan, Toronto International Airport — 1969.

Tab 1.7 Review of Reports Prepared for Toronto Planning Team, dated May 11, 1970.

Tab 1.8 Toronto Airport Planning — Position Paper — Toronto Airport Planning Team (APY), Canadian Air Transportation Administration, Ministry of Transport — May 1970.

Tab 1.9 Toronto Airport Planning — Position Paper — Toronto Airport Planning Team (APY), Canadian Air Transportation Administration, Ministry of Transport, August 1970.

Tab 1.10 Letter to Mr. D.R. Hemming, Director, Planning & Research, Air, Department of Transport, from Hans Blumenfeld, Planning Consultant, Toronto, dated August 17, 1970. (Review of August 1970 Position Paper).

Tab 1.11 Second Toronto Airport, Site Evaluation — Technical Report — Toronto Airport Planning Team, Canadian Air Transportation Administration, Ministry of Transport — September 1970.

Tab 1.12 Strategy Paper Relating Aviation Systems to Broad Policies and Programs of Public and Private Sectors, dated 8 September, 1970.

Tab 1.13 Toronto Area Airports System Plan — First Strategy Assignment — September, 1970.

Tab 1.14 Letter Report dated 30 September, 1970. Relating to Financial Strategies.

Tab 1.15 Second Assignment — Financial Strategies, October, 1970.

Tab 1.16 TAP System Analysis — February 1971 (Summary of steps in ongoing work on the aviation plan).

Tab 1.18 Toronto Area Airports Project — Financial Planning Report One — July 1971.

Tab 1.23 Toronto Area Aviation Systems — Progress Report — September 14, 1971.

Tab 1.26(a) Financial Planning Report Two — Ministry of Transport, Canadian Air Transportation Administration, Toronto Area Airports Project, December 1971.

Tab 1.27 Toronto Area Aviation System: Presentation — January 28, 1972.

Tab 2.11 Ground Transportation Travel Surveys — August 1969.

Tab 9.1 Toronto International Airport — Malton: Development Planning, Toronto Area Airports System, Transport Canada, March 1972.

Tab 12.1 New Ground Transportation Technology and the New Toronto Airport — May 4, 1972.

Tab 12.2 Advanced Ground Transportation Technology and the New Toronto Airport — July 11, 1972.

Tab 12.3 Intercity Passenger Transport Study — September 1970.

Tab 12.4 Intercity Passenger Transport Study. Tracked

Air Cushion Vehicles in the Canadian Corridor — edited March 1971.

Tab 13.5 Ground Transportation to the new Toronto Airport, May 4, 1972.

Tab 13.23 Documentation of Cost Data, June 1971.

Tab 13.29 Ground Transportation Cost Analysis, Alternative Airport Systems — February, 1972.

Tab 13.45 Toronto II: Downtown and Malton Passenger Processing — March 1971.

Tab 17.1 Toronto II Airport Size Alternatives — February 11, 1971.

- (b) **Exhibit 107** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.4 A Study Outline to Determine the Location of a Site for a Second Airport to serve Metropolitan Toronto — 1969.

Tab 1.6 Working Paper, dated October 21, 1967.

Tab 1.20 Toronto airport II Site Evaluation Report — Beverly and Pickering Township Sites - June 30, 1971.

Tab 1.21 Confidential Progress Report — August 20, 1971. Definition of Site Envelopes - Southwest and Northeast Airport Sites — Toronto Area Airports Project, Canadian Air Transportation Administration, Ministry of Transport.

Tab 1.25 Presentation Panels and Explanatory Notes — prepared by the Toronto Area Airports Project — The Three Airport System.

Tab 13.1 Toronto II — Site Evaluation Methodology, March 1972.

Tab 13.2 Financial Implications of the New Toronto Airport, May 30, 1972.

Tab 13.12 Preliminary Evaluation of Soils, Materials, Water Supply and Sewage Disposal for Site Selection, September 26, 1969.

Tab 13.13 Preliminary Evaluation of Soils, Materials,



Water Supply and Sewage Disposal for Site Selection — Addendum No. 1 — October 16, 1969.

Tab 13.14 Report on Evaluation of Four Alternative Sites for Toronto Airport II, April 1970.

Tab 13.19 Report on Ground Transportation Requirements, April 1970.

Tab 13.22 Sensitivity Analysis of the Relative Costs of Sites for the New Toronto Airport, June 1971.

Tab 13.24 Land Use Planning Segment of Toronto II Airport Noise Land Study, February 13, 1970.

Tab 13.28 A Study of Toronto Airport II Ground Transportation to Year 2000 — November, 1970.

Tab 13.46 Regional Impact of a new International Airport for Toronto — March, 1970.

Tab 18.8 Manual of Design and Construction Practices ILS Site Surveys, April, 1966.

Tab 18.9 ILS Site Selection, November 1967, with amendment, August 6, 1968.

Tab 18.10 Terminal Area Radar Systems Siting Criteria, December, 1968.

Tab 18.11 Establishment and Commissioning of Non-Directional Beacons, January, 1970, with amendment, April 21, 1970.

Tab 18.12 VOR Site Selection, May, 1970.

Tab 18.13 VHF Doppler DF Site Selection, July 1970: Amendment No. 3, March 25, 1971.

Tab 18.14 Siting of new Weather Radars, CBE, June, 1972.

Tab 18.15 DME Siting with ILS Facilities.

Tab 18.16 SSR Siting Criteria, January 15, 1970.

(c) **Exhibit 4** (of the Airport Inquiry Commission) being the following Provincial Documents:

(1) Provincial Document IA — Ontario Government Pickering Airport Site.

(2) Provincial Document IB — Statement to Legislature by W.D. McKeough June 6, 1972.

- (3) Provincial Document IX — Summary Report on Status of Airport Planning.
- (d) **Exhibit 108** (of the Airport Inquiry Commission) being the following Provincial Documents:
- (1) Provincial Document V — Submission to the Government of Canada with respect to Location of the second International Airport.
- (2) Provincial Document XI — Ground Transportation Review of Sites E and F.
- (e) **Exhibit 5** (of the Airport Inquiry Commission) being verbatim testimony before J.W. Swackhamer, Q.C., documents HT I to HT XII.
- (f) **Exhibit 6** (of the Airport Inquiry Commission) being Exhibits 1 to 87 presented before J.W. Swackhamer, Q.C., at his hearings held pursuant to the *Expropriation Act*, namely:

**Exhibit No.**

**(Swackhamer) Title**

- |   |   |
|---|---|
| 1 | Order of the Minister of Public Works dated November 8, 1972  |
| 2 | Appointment made by the Attorney General of Canada dated November 9, 1972.  |
| 3 | Notice of Public Hearing dated November 15, 1972.   |
| 4 | Notices published in the News Advertiser, Toronto Daily Star, Toronto Globe and Mail, the Toronto Sun and the Markham Economist |
| 5 | Report by L. Almack — Analysis of the Decision.   |
| 6 | Map of Metropolitan Toronto, N.T.I.A. Pickering, Cedarwood Townsite and Provincial Land Use Freeze                              |
| 7 | Paper entitled "Pickering, the Toronto II Airport and North Pickering Development" by K. Fallis                                 |

- 8 ARDA Land Classification Map.
- 9 Article from Toronto Daily Star by G. Hodge
- 10 Booklet "Ontario Economic Review" May/June 1972
- 11 Summary by P. Oehm
- 12 Press Release by W.D. McKeough
- 13 "Design for Development: TCR Concept" May 1970
- 14 "Design for Development: Status Report on TCR by W.D. McKeough" August 1971
- 15 Strok Report "A Physical Development Study of Selected Urban Centres for New T.I.A."
- 16. Newspaper clipping November 27, 1972 Toronto Daily Star
- 16a Speech entitled "Canadian Air Transportation Administration — Its Philosophy and Its Framework for the Future" by W.H. Huck
- 16b Speech July 1971 at Calgary Conference
- 16c "STOL Aircraft in Future Transport System" by E.E. Marshall
- 16d "Future of Aeronautics" September 1971 by John Allen
- 17 Newspaper clipping January 1972
- 18 Newspaper clipping June 12, 1972
- 19 Memorandum by P. Creighton, F.C.A.
- 19a Brief by W. Draper
- 20 Submission by W. Baird
- 21 Memorandum from Environmental Law Association re: Nora Geraghty
- 21a Analysis by B. Buckles
- 21b "Catchment" Area speech June 1972 by Mr. Davis.
- 22 Airport Need Summary

- 23 Notes for an Address by the Honourable Don Jamieson, Minister of Transport to the York County and District Real Estate Board at Aurora, Ontario, June 14, 1972.
- 24 Objections of Town of Whitchurch-Stouffville to Expropriation of Lands for an Airport in Pickering November 1972
- 25 Map of Whitchurch-Stouffville
- 26 Letter to the Minister of Public Works from the Leader of the Opposition
- 27 Map of Whitchurch-Stouffville filed by Mr. Stevens November 30
- 28 Map of Town of Whitchurch-Stouffville
- 29 Map of New International Airport at Montreal (Ste. Scholastique)
- 30 Polls and votes within Whitchurch-Stouffville Area.
- 31 List of members of the Metropolitan Toronto Airport Review Committee
- 32 Booklet entitled "Hercules Amphibian"
- 33 Globe and Mail articles by Mr. Gellmar (two)
- 34 Department of Transport publication entitled "Passenger and Cargo Forecasts including Methodology for the Toronto Area Airports System" April 2, 1972.
- 35 Notice of Objections of Mr. T.J.F. Lash
- 36 Article entitled "Magnetic Levitation for Guided Ground Transport" Engineering Digest, October 1972
- 37 Paper by Dr. Norman Pearson entitled "The Great Lakes as a Human Resource"
- 38 Letter of June 30 to Mr. Lash from Mr. Jack Davis, Minister of Environment

- 39      Reproduction of article in Toronto Star, April 30
- 40      Document published by Environmental Law Research Foundation entitled "Public Rights and Environmental Planning", January 1972.
- 41      Land Use Dynamics Toronto II Airport Study
- 42      Bound Volume entitled "Aquaport Systems International"
- 43      Map of southern Ontario and northern New York State showing Aquaport location
- 44      Brief prepared by J.C. Crang entitled "The Unexplored Option"
- 45      Publication entitled "Offshore Airport Concepts"
- 46      Brief of Town Planning Institute of Canada, July 1972
- 47      Map entitled "Size and Effects on Toronto of Proposed 2<sup>nd</sup> Airport and Cedarwood Development"
- 48      "The Third London Airport — The Process of Decision" article by Prof. D. Keith-Lucas, Canadian Aeronautics and Space Journal, January 1972
- 49      Regional Airport System Study of the Association of Bay Area Governments
- 49a     Association of Bay Area Governments publication "Aviation Future"
- 50      Report dated October 1971 entitled "Participation and Liberal Democratic Government"
- 51      "Towards a new Urban Politics" by Dr. N. Harvey Lithwick
- 52      Metropolitan Toronto Transportation

	Plan Review Public Participation Program
53	Memorandum to W. Wronski, Metro Commissioner of Planning
54	Notice of Objections of Trans-Canada Pipelines Limited
55	Sketch Map showing location of pipeline and meter station
56	Brief prepared by J.M. Duggan
57	Document entitled "A Further Note on the Need for a Second Toronto Airport-Appendix 3"
58	Notes prepared by Mr. Green.
59	Brief of Warchester Investments Ltd. together with survey
60	Map outlining Regional Municipality of York
60a	Submission from Regional Municipality of York
61	Minute No. 58 and No. 189 of the Council of the Regional Municipality of York
62	Document headed "Town of Whitchurch-Stouffville Zoning By-Law" January 1972
63	Two page article from Toronto Daily Star of February 20, 1971, headed "Orangeville Area Favoured by Ottawa for new Airport".
64	Acknowledgement of receipt of Objection of Regional Municipality of York dated November 6, 1972
65	Notice of Intention to Expropriate Whitchurch-Stouffville
66	Notice of Intention to Expropriate in Townships of Pickering and Uxbridge



- 67 Document entitled "Opinions Proposed-Toronto II Airport-Survey of Toronto Area Candidates for the Federal Election"
- 68 Paper entitled "Proposed Pickering Airport-Opinions of Toronto Area MP's Elected October 30, 1972"
- 69 Submission of Miss Ellen Adams
- 70 Article by Captain Desmarais
- 71 Brief of Richard James
- 72 Written submission of Mr. Brian Buckles, "Why Expropriation Now?"
- 73 Photograph of the Miller House
- 74 Submission of Mrs. Kathleen Strike
- 75 Letter from the Secretary of Board of Trustees of the Brunswick Cemetery
- 76 Letter of H and Y Developments Ltd., Felray Investments Ltd., undated addressed to Right Hon. Mr. Trudeau
- 77 Letter of Objection from Mr. H.A. Harcourt dated December 6, 1972
- 78 Statement of Mr. Mitchell
- 79 Circular from egg-laying contest in Montreal in 1938
- 80 Submission by Mr. Ritchie with attachments
- 81 Judge Terence Moore's brief, together with the exhibits attached thereto.
- 82 Submission by Thelma Robinson, four pages undated
- 83 Submission by Mr. Terry H. Erhart, two pages dated October 30, 1972.
- 84 Letter from Mr. P.W.J. Mingay to Mr. J.W. Swackhamer dated December 7, 1972.

- 85 Two letters from the Douglas Page family dated November 20, 1972.
- 86 Letter from Mr. and Mrs. Harold Lewis, with attachments.
- 87 Commentary by Mr. Allen R. Graham to slide presentation.

(g) **Exhibit 7** (of the Airport Inquiry Commission) being:

- A 3 Aerodrome Standards, Physical Characteristics and Zoning Requirements, December, 1973.
- A 8 Toronto Commuter Rail Study, November 1972.
- A 9 Expansion of Aviation Systems for Toronto and southwestern Ontario: Ministry of Transport Releases, March 2, 1972.
- A11 Revolving Fund Authority, January, 1970, March 1971.
- A13 House of Commons Debates: Official Report, Tuesday, January 30, 1973
  - Statement by The Honourable Jean Eudes Dubé Minister of Public Works, to the House of Commons (page 765)
  - Statement by Transport Minister The Honourable Jean Marchand on "The Site Selection for a second Toronto-Centred Region International Airport" (page 812)
- A21 Urban Transportation Policy for Ontario, November 22, 1972. Statement by The Honourable William G. Davis, Premier of Ontario.

8. Evidence relating to Question 1, (c) in the *Order in Council* P.C. 1973-3026 which was categorized as Phase I, Question 4 (1) by the Commission in its Schedule of Hearings.

- A. "Old" evidence (being Exhibits 3, 107, 5, 6 and 7 of the Airport Inquiry Commission).

- (a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.1 Master Plan for Toronto International Airport — Prepared for: The Department of Transport, Ottawa, by John B. Parkin Associates, Architects and Engineers — November 1967.

Tab 1.2 Summary Document prepared by Ministry of Transport for Information Purposes — December 1968.

Tab 1.3 Outline Conceptual Plan, Toronto International Airport — 1969.

Tab 1.5 Progress Report on Expansion of Major Airport Facilities in the Toronto Region — Department of Transport — May 30, 1969.

Tab 1.6 Working Paper, October 21, 1967.

Tab 1.8 Toronto Airport Planning — Position Paper, Toronto Airport Planning Team (APY), Canadian Air Transportation Administration, Ministry of Transport, August 1970.

Tab 1.11 Second Toronto Airport, Site Evaluation — Technical Report — Toronto Airport Planning Team, Canadian Air Transportation Administration, Ministry of Transport — September 1970.

Tab 1.12 Strategy Paper Relating Aviation Systems to Broad Policies and Programs of Public and Private Sectors, dated 8 September 1970.

Tab 1.13 Toronto Area Airports System Plan — First Strategy Assignment — September 1970.

Tab 1.15 Second Assignment — Financial Strategies — October 1970.

Tab 1.16 Tap System Analysis — February 1971 (Summary of steps in ongoing work on the aviation plan).

Tab 1.17 An Evaluation of the Impact of STOL on the Toronto Area Airport System — Toronto Airports Project — April 1971.

Tab 1.18 Toronto Area Airports Project — Financial Planning Report One — July 1971.

Tab 1.19 Air Passenger Distribution and Airport Assignment Study – June 1971.

Tab 1.23 Toronto Area Aviation Systems – Progress Report – September 14, 1971.

Tab 1.26 (a) Financial Planning Report Two – Ministry of Transport, Canadian Air Transportation Administration, Toronto Area Airports Project, December 1971.

Tab 1.26 (b) Financial Planning Report Two – Volume 2 – Appendix A – Site Evaluation Northeast Plus Malton (Restricted).

Tab 1.27 Toronto Area Aviation System: Presentation – January 28, 1972.

Tab 4.1 Flight Information Manual 1972.

Tab 4.2 Airport Capacity Handbook, Second Edition, June 1969.

Tab 4.3 Toronto Terminal Area System Capacity and Airport Location, January 1970.

Tab 4.4 Airport Capacity Analysis, Toronto International Airport, April 1970.

Tab 4.5 The Effect of Parallel Runway Separation on Airports Capacity, Toronto International Airport, August 1970.

Tab 4.6 Special Procedures for Handling Heavy Jets, July 1971.

Tab 4.7 Procedures for Control of Aircraft Following Heavy Jet Aircraft, August 1971.

Tab 4.8 Heavy Jet Separation Criteria, July 1972

Tab 6.1 Congressional Air Transportation Congestion Study – January 1971.

Tab 6.2 Air Charter Operations and Airport Congestion – September 1970.

Tab 6.3 Air Charter Operations and Terminal Congestion – November 1970.

Tab 6.4 Terminal Congestion at Toronto International Airport – December 1971.

Tab 7.1 A Description of the CNR and NEF Systems for Estimating Aircraft Noise Annoyance – October 1971.

Tab 7.2 A Study of the Aircraft Noise Considerations, Toronto International Airport, with regard to Opening Date of Toronto II – May 1970.

Tab 7.3 Aircraft Noise Considerations, Toronto International Airport, Malton 1971 – 1980 – September 1972.

Tab 8.1 “Economic Impact of Implementing Acoustically Treated Nacelle and Duct Configurations Applicable to Low Bypass Turbofan Engines”, prepared for U.S. Federal Aviation Administration, Office of Noise Abatement, by Rohr Corp. – July 1970.

Tab 8.2 “New Noise Regulations Possible for SST’s”, Aviation Week and Space Technology – April 19, 1971.

Tab 8.3 “Acoustical Retrofit Bill Stirs Controversy”, Aviation Week and Space Technology – April 1971.

Tab 8.4 “NASA and FAA Argue Over Money for Quieter Engines”, Aviation Daily – July 16, 1971.

Tab 8.5 “Boeing, Douglas Outline Aircraft Noise Research Difficulties”, Aviation Daily – July 16, 1971.

Tab 8.6 “Flight Test Noise Measurement Results” Chart – December 1, 1971.

Tab 8.7 “Aircraft Noise in the 1980’s”, Tech Air – January 1972.

Tab 8.8 “Stop That Noise”, Flight International – February 10, 1972.

Tab 8.9 “Engine Noise Antidotes Weighted”, Aviation Week and Space Technology – February 14, 1972.

Tab 8.10 “Noise is Off”, Flight International – March 23, 1972.

Tab 8.11 “The NASA Quiet Engine Program”, a NASA Technical Memorandum – March 1972.

Tab 8.12 “NASA Cites Jet Noise Reduction Gains” Aviation Week and Space Technology – April 19, 1972.

Tab 8.13 “How Noisy Are the Widebodies?”

Tab 8.14 “Aircraft Noise”, MOT U.K. Newsletter.

Tab 8.15 “Aircraft Noise – Quiet Engine Development and Retrofit”: Remarks by the Associate Administrator, NASA – May 16, 1972.

Tab 9.3 Toronto International Airport Expansion, August 1970.

Tab 9.6 Ground Transportation Requirements for Infield Terminal, November 1970.

Tab 9.8 Etobicoke Creek Realignment, July 1970.

Tab 9.10 Capacity Forecast, TIA Malton, July 1971.

Tab 11.1 The Impact of STOL on the Toronto Area Airports System – July 11, 1972.

Tab 11.2 An Assessment of STOL Technology – November 1970.

Tab 11.3 STOL Aircraft Future Trends – May 1971.

Tab 11.4 STOL Transportation System Planning – May 1971.

Tab 11.5 V/STOL Community Annoyance due to Noise: Proposed Indices and Levels – March 1972.

Tab 11.6 A Review and Analysis of STOL Systems Technology – April 1970.

Tab 11.7 Preliminary Report Concerning the Possible Noise Certification of STOL Aircraft – November 1971.

Tab 11.8 Canada's STOL Program – A Progress Report, with attachment. October 1971.

Tab 12.1 New Ground Transportation Technology and the New Toronto Airport – May 4, 1972.

Tab 12.2 Advanced Ground Transportation Technology and the New Toronto Airport – July 11, 1972.

Tab 12.3 Intercity Passenger Transport Study – September 1970.

Tab 12.4 Intercity Passenger Transport Study: Tracked Air Cushion Vehicles in the Canadian Corridor – edited March 1971.

Tab 12.5 Intercity Passenger Transport Study: Operating Costs for Conventional and STOL Aircraft – prepared November 1971.

Tab 13.2 Financial Implications of the New Toronto Airport, May 30, 1972.



Tab 13.14 Report on Evaluation of Four Alternative Sites for Toronto Airport II, April 1970.

Tab 13.23 Documentation of Cost Data, June 1971.

Tab 18.6 Toronto Lakeshore Site Suitability, January 1970.

Tab 18.7 Feasibility Study of Present and Proposed Toronto Island Airports, November 1967.

- (b) **Exhibit 107** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 13.1 Toronto II — Site Evaluation Methodology, March 1972.

Tab 13.7 Off-Shore Airport Concepts, April 21, 1972.

Tab 13.8 Nuclear Power Plant and the New Toronto Airport, April 21, 1972.

Tab 13.9 The New Metropolitan Toronto Zoo and the New Toronto Airport, April 21, 1972.

Tab 13.10 Historical Sites and the New Toronto Airport, April 20, 1972.

Tab 18.5 Evaluation of Construction Methods for Off-Shore Airports, August 1969.

- (c) **Exhibit 5** (of the Airport Inquiry Commission) being verbatim testimony before J.W. Swackhamer, Q.C., documents HT I to HT XII.

- (d) **Exhibit 6** (of the Airport Inquiry Commission) being Exhibits 1 to 87 presented before J.W. Swackhamer, Q.C. at his hearing held pursuant to the *Expropriation Act*, namely:

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| 3 | Notice of Public Hearing dated November 15, 1972.                          |

- 4 Notices published in the News Advertiser, Toronto Daily Star, Toronto Globe and Mail, the Toronto Sun and the Markham Economist
- 5 Report by L. Almack — Analysis of the Decision.
- 6 Map of Metropolitan Toronto, N.T.I.A. Pickering, Cedarwood Townsite and Provincial Land Use Freeze.
- 7 Paper entitled "Pickering, the Toronto II Airport and North Pickering Development" by K. Fallis
- 8 ARDA Land Classification Map.
- 9 Article from Toronto Daily Star by G. Hodge.
- 10 Booklet "Ontario Economic Review" May/June 1972
- 11 Summary by P. Oehm
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- 13 "Design for Development: TCR Concept" May 1970
- 14 "Design for Development: Status Report on TCR by W.D. McKeough" August 1971.
- 15 Strok Report "A Physical Development Study of Selected Urban Centres for New T.I.A."
- 16 Newspaper clipping November 27, 1972 Toronto Daily Star
- 16a Speech entitled "Canadian Air Transportation Administration — Its Philosophy and Its Framework for the Future" by W.H. Huck
- 16b Speech July 1971 at Calgary Conference
- 16c "STOL Aircraft in Future Transport System" by E.E. Marshall

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- 17 Newspaper clipping January 1972
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- including Methodology for the Toronto Area Airports System" April 2, 1972.
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- 39 Reproduction of article in Toronto Star, April 30
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- Keith-Lucas, Canadian Aeronautics and Space Journal, January 1972
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- 61 Minute No. 58 and No. 189 of the Council of the Regional Municipality of York
- 62 Document headed "Town of Whitchurch-Stouffville Zoning By-Law" January 1972

- 63 Two page article from Toronto Daily Star of February 20, 1971, headed "Orangeville Area Favoured by Ottawa for new Airport"
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- 79 Circular from egg-laying contest in Montreal in 1938



- 80 Submission by Mr. Ritchie with attachments
- 81 Judge Terence Moore's brief, together with the exhibits attached thereto
- 82 Submission by Thelma Robinson, four pages undated
- 83 Submission by Mr. Terry H. Erhart, two pages dated October 30, 1972
- 84 Letter from Mr. P.W.J. Mingay to Mr. J.W. Swackhamer dated December 7, 1972
- 85 Two letters from the Douglas Page family dated November 20, 1972
- 86 Letter from Mr. and Mrs. Harold Lewis, with attachments
- 87 Commentary by Mr. Allen R. Graham to slide presentation

(e) **Exhibit 7** (of the Airport Inquiry Commission) being:

- A 3 Aerodrome Standards, Physical Characteristics and Zoning Requirements, December 1973.
- A14 Summary Report: Planning of T.I.A. Malton, December 1973.
- A16 A Study of the Toronto Island Airport to Determine its Potential as a Civil Aviation Airport and its Potential for STOL Operations, (No. 168), July 1972.
- A22 Federal Aviation Regulations, Volume III, Part 36, Noise Standards: Aircraft Type Certification, December 1, 1969.
- A23 A Quiet Alternative Airport Plan, 1972, The deHavilland Aircraft Company of Canada, Limited.
- A24 Evaluation of STOLport Locations in Greater Toronto, April 1972.

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- A25 The Effects of Introducing STOL Service on Malton Development, May 1972.
- A26 STOLport Site Evaluation, Toronto, Ontario, Report S-71-18, Ottawa, September 1972.
- A27 An Assessment of STOL Technology, July 1970 (CTC 1970).
- A28 Analysis of "A Quiet Alternative Airport Plan", 1972.

B. "Other" evidence.

(a) Witnesses

Witness	Date	Transcript Page	Exhibits
Beak, A.K.	May 6	3625	460,461, 462, 463(A), 463(B), 463(C), 464,465, 466,467
			none
	May 6	3673 (c.e. Bell)	none
		3677 (c.e. Lockett)	none
		3678 (c.e. Waterman)	none
		3740 (c.e. Monaghan)	none
	May 10	4615	none
	May 10	4675 (c.e. Waller)	none
		4712 (c.e. Waterman)	none
			none

<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
		4723 (c.e. Monaghan)	none
Beinhaker, P.	May 6	3684	none
	May 10	4605	none
	May 10	4688 (c.e. Waller)	none
	May 10	4707 (c.e. McDonald)	none
		4734 (c.e. Monaghan)	none
Belcher, J.	May 6	(not asked any questions)	
Block, F.C.	May 6	(not asked any questions)	
Cicci, Dr. F.	May 8	4093 (c.e. Weir)	none
		4131 (c.e. Waterman)	none
		4203 (c.e. Dunne)	none
Coulas, R.I.	May 10	4686 (c.e. Waller)	none

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<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
Davies, Mrs. B.	May 9	4497	none
Day, Lawrence H.	May 9	4312	472
	May 9	4362 (c.e. Sharpe)	none
		4368 (c.e. Stratton)	none
		4372 (c.e. Macaulay)	none
Deacon, Donald	May 6	3773	468
	May 6	3785 (c.e. Waterman)	none
		3789 (c.e. MacKinnon)	none
Duggan, John	May 9	4339	473(A) 473(B)
	May 9	4357 (c.e. Waterman)	none
		4373 (c.e. Monaghan)	none
Edmiston, R.	May 10	4660	none
Eggleston, B.	May 8	4065 (c.e. Weir)	none
Eidt, Conrad H.	May 10	4515	none

<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
	May 10	4519 (c.e. MacKinnon)	none
Elek, Andrew	May 10	4735	none
Filotas, Dr. L.	May 6	3673 (c.e. Bell)	none
		3682 (c.e. Waterman)	none
	May 10	(not asked any questions)	
Fitton, L.	May 6	3726 (c.e. Waterman)	none
	May 10	(not asked any questions)	
Foster, Col. C.	May 7	3798	none
	May 7	3900 (c.e. Dunne)	none
		3939 (c.e. Weir)	none
		3948 (c.e. Bell)	none
		3953 (c.e. Waterman)	none

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<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
Frost, Al- len Chester	May 9	4411	475
	May 9	4422 (c.e. Dunne)	none
Fruehauf, Winfried	May 9	4440	477
	May 9	4457 (c.e. McDonald)	none
		4462 (c.e. Dunne)	none
Ginsburg, I.	May 6	(not asked any questions)	
	May 10	(not asked any questions)	
Hamer, Ian M.	May 9	4476	482, 482(A), 482(B)
Jackson, Ronald G.	May 8	3972	none
	May 8	4064 (c.e. Weir)	none
		4130 (c.e. Waterman)	none
		4162 (c.e. MacKinnon)	none
		4207 (c.e. Dunne)	none



<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
Law, W.	May 6	4251 (c.e. Monaghan)	none
		(not asked any questions)	
	May 10	4737 (c.e. Monaghan)	none
MacMillan, Dr. Don- ald Angus McIntyre, R.B.	May 10	4510	483
	May 8	3964	409
		4052 (recalled)	none
	May 8	4057 (c.e. Weir)	none
		4137 (c.e. Waterman)	none
		4164 (c.e. MacKinnon)	none
		4259 (c.e. Monaghan)	none
	May 10	4586	none
		4672 (c.e. Waller)	none
	May 10	4691 (c.e. Weir)	none

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Witness	Date	Transcript Page	Exhibits
		4711 (c.e. Waterman)	none
		4717 (c.e. Monaghan)	none
Pearson, Dr. P.	May 10	(not asked any questions)	
Pentland, William Thomas Peters, D.	May 9	4405	none
	May 6	(not asked any questions)	
Potvin, L.	May 10	4605	491(A), 491(B), 491(C) 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510

<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
Potvin, L (cont'd)	May 10	4683 (c.e. Waller)	none
		4697 (c.e. Weir)	none
		4716 (c.e. Waterman)	none
		4726 (c.e. Monaghan)	none
Richards, Norval Richard	May 9	4423	none
	May 9	4433 (c.e. Dunne)	none
Richardson, Douglas	May 9	4384	474
	May 9	4468 (c.e. Dunne)	none
Ribner, Herbert Spencer (Dr.)	May 8	4027	none
	May 8	4065 (c.e. Weir)	none
		4213 (c.e. Dunne)	none
		4245 (c.e. Monaghan)	none

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<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
Scott, K.N.	May 10	(not asked any questions)	
Simpson, C.	May 6	(not asked any questions)	
	May 10	4661	none
	May 10	4703 (c.e. McDonald)	none
		4714 (c.e. Waterman)	none
Simpson, Robert Warren (Dr.)	May 8	4039	none
	May 8	4057 (c.e. Weir)	none
		4129 (c.e. Waterman)	none
		4176 (c.e. Dunne)	none
Sladek, G.	May 10	(not asked any questions)	
Stone, J.	May 6	(not asked any questions)	

<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
Stratford, H. Ralph	May 10	4522	484, 485, 487
	May 10	4532 (c.e. Bell)	none
		4532 (c.e. Waterman)	none
		4094 (c.e. Weir)	none
Toplis, A.F.	May 8	4143 (c.e. Waterman)	none
		4183 (c.e. Dunne)	none
		4731 (c.e. Monaghan)	none
		4280	470, 471
Vance, J.	May 10	4294 (c.e. MacKinnon)	none
		4306 (c.e. Stratton)	none
		4307 (c.e. Macaulay)	none
		4534	488, 489, 490, 491
Wade, Dr. John Henry Terry	May 10	4561 (c.e. Bell)	none

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Witness	Date	Transcript Page	Exhibits
		4569 (c.e. Dunne)	none
Wentzell, C.	May 10	(not asked any questions)	
Whiting, Richard Benson	May 8	4031	none
	May 8	4133 (c.e. Waterman)	none
Wiley, John R. (Dr.)	May 8	4034	none
	May 8	4068 (c.e. Weir)	none
		4172 (c.e. MacKinnon)	none
		4180 (c.e. Dunne)	none
		4247 (c.e. Monaghan)	none

- (b) Documentary (being Exhibits 460, 461, 462, 463A, 463B, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473A, 473B, 474, 475, 477, 482A, 482B, 483, 484, 485, 487, 488, 489, 490, 491, 491A, 491B, 491C, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509 and 510 of the Airport Inquiry Commission).

(1) **Exhibit 460** (of the Airport Inquiry Commission) — Aircraft Engine Noise Reduction Program, April 1974.

(2) **Exhibit 461** (of the Airport Inquiry Commission) —



Operational Procedures Designed to Reduce the Impact of Aircraft Noise in Areas in Vicinity of Airports, April, 1974.

(3) **Exhibit 462** (of the Airport Inquiry Commission) — Aircraft Technology for Civil Aviation, July 1973.

(4) **Exhibit 463A** (of the Airport Inquiry Commission) — Introduction of JETS — April 1973.

(5) **Exhibit 463B** (of the Airport Inquiry Commission) — JETS: Canada's Joint Enroute Terminal System, February 1974.

(6) **Exhibit 464** (of the Airport Inquiry Commission) — Noise Source Abatement Technology and Cost Analysis, including Retrofitting, EPA July 1973.

(7) **Exhibit 465** (of the Airport Inquiry Commission) — Feasibility of STOL Operations at Toronto Island Airport, October 1973.

(8) **Exhibit 466** (of the Airport Inquiry Commission) — Panel entitled Turbofan Engine Noise Considerations.

(9) **Exhibit 467** (of the Airport Inquiry Commission) — Chart entitled Two-Segment Approach.

(10) **Exhibit 468** (of the Airport Inquiry Commission) — Evidence Statement of Liberal Caucus.

(11) **Exhibit 469** (of the Airport Inquiry Commission) — Summary statement and appendices of deHavilland Aircraft.

(12) **Exhibit 470** (of the Airport Inquiry Commission) — Witness Statement of Dr. Voss.

(13) **Exhibit 471** (of the Airport Inquiry Commission) — Panel showing the Assiniboine Park Zoo.

(14) **Exhibit 472** (of the Airport Inquiry Commission) — Statement of Mr. Day.

(15) **Exhibit 473A** (of the Airport Inquiry Commission) — Submission Agreement of the Town of Mississauga, registered.

(16) **Exhibit 473B** (of the Airport Inquiry Commission) — Submission Agreement of the Town of Mississauga.

- (17) **Exhibit 474** (of the Airport Inquiry Commission) — Evidence Statement of Mr. Richardson.
- (18) **Exhibit 475** (of the Airport Inquiry Commission) — Membership Pamphlet of Canadian Owners and Pilots Association.
- (19) **Exhibit 477** (of the Airport Inquiry Commission) — Document numbered 207, dated April 7, 1974.
- (20) **Exhibit 482A** (of the Airport Inquiry Commission) — Statement of Ian M. Hamer.
- (21) **Exhibit 482B** (of the Airport Inquiry Commission) — Supplement to statement of Hamer.
- (22) **Exhibit 483** (of the Airport Inquiry Commission) — Evidence Statement of The Regional Municipality of Niagara North.
- (23) **Exhibit 484** (of the Airport Inquiry Commission) — Five resolutions of The Regional Municipality of Niagara North.
- (24) **Exhibit 485** (of the Airport Inquiry Commission) — Mr. Stratford's statement, AIC-217.
- (25) **Exhibit 487** (of the Airport Inquiry Commission) — Article from *Astronautics and Aeronautics* by Roy P. Jackson.
- (26) **Exhibit 488** (of the Airport Inquiry Commission) — Chart entitled "PNdB versus distance landings".
- (27) **Exhibit 489** (of the Airport Inquiry Commission) — Chart Entitled PNdB vs distance takeoff.
- (28) **Exhibit 490** (of the Airport Inquiry Commission) — Chart NEF contours (actual) Malton.
- (29) **Exhibit 491** (of the Airport Inquiry Commission) — Questions and answers relating to the Hearings at Brougham.
- (30) **Exhibit 491A** (of the Airport Inquiry Commission) — Panel entitled "New Toronto International Airport Pickering and surrounding area Conservation Areas/Golf Courses, NEF contours shown are for 1990."
- (31) **Exhibit 491B** (of the Airport Inquiry Commission) — Panel entitled 'NTIA Pickering and surrounding area

Conservation Areas/Golf Courses, NEF Contours shown are for the 1980 Scenario G – Traffic”.

(32) **Exhibit 491C** (of the Airport Inquiry Commission) – Panel entitled ‘TIA Malton and surrounding area Conservation Areas/Golf Courses, NEF contours shown are for 1980 All Traffic”.

(33) **Exhibit 492** (of the Airport Inquiry Commission) – Chart entitled “Summary of existing areas and first estimate of future requirements to accommodate airport needs to year 2000.”

(34) **Exhibit 493** (of the Airport Inquiry Commission) – Chart entitled “Alternative Plan B-2”.

(35) **Exhibit 494** (of the Airport Inquiry Commission) – Chart showing forecast demand in passenger peak hour and cargo total tons and land area required (in acres).

(36) **Exhibit 495** (of the Airport Inquiry Commission) – “Additional Runway Within Existing Airport Boundaries”.

(37) **Exhibit 496** (of the Airport Inquiry Commission) – Panel entitled “Additional Runway Within Existing Boundaries – Separation from 14/32: 2500 feet.”

(38) **Exhibit 497** (of the Airport Inquiry Commission) – Panel entitled “Additional Runway Within Existing Boundaries – Separation from 14/32: 3500 feet.”

(39) **Exhibit 498** (of the Airport Inquiry Commission) – Panel entitled “Existing Runways Within Existing Boundaries – Separation from 14/32: 4400 feet.”

(40) **Exhibit 499** (of the Airport Inquiry Commission) – Document B-34, entitled “TIA Malton, 1980 NEF Contours four runway configuration.”

(41) **Exhibit 500** (of the Airport Inquiry Commission) – Chart entitled “Takeoff Noise Levels.”

(42) **Exhibit 501** (of the Airport Inquiry Commission) – Chart entitled “TIA Malton 1973 NEF Noise Contours Actual.”

(43) **Exhibit 502** (of the Airport Inquiry Commission) –

Chart entitled “NEF Contours, 1985, All Traffic, All Aircraft, Meet FAR-36.”

(43) **Exhibit 503** (of the Airport Inquiry Commission) — Chart entitled “1973 Population Affected.”

(44) **Exhibit 504** (of the Airport Inquiry Commission) — Chart entitled “NEF Contours — 1985 — All Traffic — All Aircraft Display DC-10 Characteristics, New 14/32 Runway, 4400 feet separation.”

(45) **Exhibit 505** (of the Airport Inquiry Commission) — Chart entitled “NEF contours 1990 All Traffic, All Aircraft meet FAR-36 new 14/32 runway 4,400 feet separation.”

(46) **Exhibit 506** (of the Airport Inquiry Commission) — Chart entitled “NEF contours 1990 All Traffic, All Aircraft Display DC-10 Characteristics, New 14/32 Runway, 4,000 foot separation.”

(47) **Exhibit 507** (of the Airport Inquiry Commission) — 1985 NEF contours Scenario G All Aircraft Meeting FAR-36.

(48) **Exhibit 508** (of the Airport Inquiry Commission) — NEF contours NTIA 1985 Scenario G All Aircraft meet FAR-36.

(49) **Exhibit 509** (of the Airport Inquiry Commission) — Chart entitled “NEF contours 1990 Scenario G All Aircraft meet FAR-36.”

(50) **Exhibit 510** (of the Airport Inquiry Commission) — Background document to Exhibit 55.

9. Evidence relating to Question 2 (a) in the *Order in Council* P.C. 1973-3026 which was categorized as Phase II, Question 1 (1) by the Commission in its Schedule of Hearings.

A. “Old” evidence (being Exhibits 3 and 7 of the Airport Inquiry Commission).

(a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.24 Passenger Distribution and Airport Assignment Study — Phase II, Stage 1, January 1972.

Tab 2.12 Malton Survey and Measurement Project — January 1972.

(b) **Exhibit 7** (of the Airport Inquiry Commission) being:

- A 3 Aerodrome Standards, Physical Characteristics and Zoning Requirements, December 1973.
- A 5 Design for Development: The Toronto-Centred Region, May 1970.
- A 6 Design for Development: A Status Report on the Toronto-Centred Region, August 1970.
- A 7 Annex of Understanding agreed by the Government of Canada and the Government of Ontario, March 1, 1972.
- A14 Summary Report: Planning of T.I.A. Malton December 1973.
- A19 Passenger Distribution and Airport Assignment Study Phase II — Stage 2 Airport Roles, April 1972.

B. “Other” evidence.

(a) **Witnesses**

Witness	Date	Transcript Page	Exhibits
Potvin, L	May 21	4954	526
		5003 (c.e. Monaghan)	none

(b) Documentary (being Exhibits 11, 27, 37, 64, 66, 67, 309, 316, 317, 319, 320, 431, 458 and 526 of the Airport Inquiry Commission)

(1) **Exhibit 11** (of the Airport Inquiry Commission) — Document B 19, Airspace Organization and Management in the Two Airport System, N.T.I.A. Pickering and T.I.A. Malton, December 1973.

(2) **Exhibit 27** (of the Airport Inquiry Commission) — Document B 39, Peak Hour Analysis, February 1974.

- (3) **Exhibit 37** (of the Airport Inquiry Commission) — Document B 34, Noise Exposure Forecasts for T.I.A. Malton and N.T.I.A. Pickering, 1971-1985, February 1974.
- (4) **Exhibit 64** (of the Airport Inquiry Commission) — Document B 40, Forecasts of Year 2000 Toronto Airports System Groundside Travel Demands for Scenario H, December 1973.
- (5) **Exhibit 66** (of the Airport Inquiry Commission) — Letter of September 27, 1973 from W. Bidell of MTC to G.E. McDowell of MOT.
- (6) **Exhibit 67** (of the Airport Inquiry Commission) — Letter of September 12, 1973 from G.E. McDowell of MOT to W. Bidell of MTC.
- (7) **Exhibit 309** (of the Airport Inquiry Commission) — Document B 54, Supplement to Document B 34: The Effect of Curved Departures on Noise Exposures Forecasts, N.T.I.A. Pickering, March 1974.
- (8) **Exhibit 316** (of the Airport Inquiry Commission) — Document B 16, The Impact of N.T.I.A. Pickering on the Toronto Region, December 1973.
- (9) **Exhibit 317** (of the Airport Inquiry Commission) — Document B 43, The Impact of N.T.I.A. Pickering on the Toronto Region, Progress Report and Update, March 1974.
- (10) **Exhibit 319** (of the Airport Inquiry Commission) — Document C 15, Employee Shift Analysis and Employee Movement Forecasts, September 1973.
- (11) **Exhibit 320** (of the Airport Inquiry Commission) — Document B 52, Employee Shift Analysis and Employee Movement Forecasts, March 1974.
- (12) **Exhibit 431** (of the Airport Inquiry Commission) — Document B 57, 1972 Passenger Survey, March 1974.
- (13) **Exhibit 458** (of the Airport Inquiry Commission) — Document B 56, N.T.I.A. — A Study of Road Access for 1980, March 1974.
- (14) **Exhibit 526** (of the Airport Inquiry Commission) —



Panel entitled “Summary of alternative opening roles NTIA 1980”.

10. Evidence relating to Question 2 (b) in the *Order in Council* P.C. 1973-3026 which was categorized as Phase II, Question 1 (2) by the Commission in its Schedule of Hearings.

A. “Old” evidence (being Exhibits 3 and 7 of the Airport Inquiry Commission).

(a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.24 Passenger Distribution and Airport Assignment Study – Phase II, Stage 1, January 1972.

Tab 2.12 Malton Survey and Measurement Project – January 1972.

(b) **Exhibit 7** (of the Airport Inquiry Commission) being:

A 3 Aerodrome Standards, Physical Characteristics and Zoning Requirements, December 1973.

A 5 Design for Development: The Toronto-Centred Region, May 1970.

A 6 Design for Development: A Status Report on the Toronto-Centred Region, August 1970.

A 7 Annex of Understanding agreed by the Government of Canada and the Government of Ontario, March 1, 1972.

A14 Summary Report: Planning of T.I.A. Malton December 1973.

A19 Passenger Distribution and Airport Assignment Study Phase I – Stage 2 Airport Roles, April 1972.

B. “Other” evidence.

(a) **Witnesses**

Witness	Date	Transcript Page	Exhibits
Coulas, R.	May 21	4985 (c.e. Waterman)	none

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<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
		4998 (c.e. Monaghan)	none
Potvin, L.	May 21	4958  4983 (c.e. Waterman)	516, 517 none
(b) Documentary (being Exhibits 11, 27, 37, 64, 66, 67, 309, 316, 317, 319, 320, 431, 458, 516 and 517 of the Airport Inquiry Commission)			
(1) <b>Exhibit 11</b> (of the Airport Inquiry Commission) – Document B 19, Airspace Organization and Management in the Two Airport System, N.T.I.A. Pickering and T.I.A. Malton, December 1973.			
(2) <b>Exhibit 27</b> (of the Airport Inquiry Commission) – Document B 39, Peak Hour Analysis, February 1974.			
(3) <b>Exhibit 37</b> (of the Airport Inquiry Commission) – Document B 34, Noise Exposure Forecasts for T.I.A. Malton and N.T.I.A. Pickering, 1971-1985, February 1974.			
(4) <b>Exhibit 64</b> (of the Airport Inquiry Commission) – Document B 40, Forecasts of Year 2000 Toronto Airports System Groundside Travel Demands for Scenario H, December 1973.			
(5) <b>Exhibit 66</b> (of the Airport Inquiry Commission) – Letter of September 27, 1973 from W. Bidell of MTC to G.E. McDowell of MOT.			
(6) <b>Exhibit 67</b> (of the Airport Inquiry Commission) – Letter of September 12, 1973 from G.E. McDowell of MOT to W. Bidell of MTC.			
(7) <b>Exhibit 309</b> (of the Airport Inquiry Commission) – Document B 54, Supplement to Document B34: The Effect of Curved Departures on Noise Exposures Forecasts, N.T.I.A. Pickering, March 1974.			
(8) <b>Exhibit 316</b> (of the Airport Inquiry Commission) – Document B 16, The Impact of N.T.I.A. Pickering on the Toronto Region, December 1973.			

(9) **Exhibit 317** (of the Airport Inquiry Commission) — Document B 43, The Impact of N.T.I.A. Pickering on the Toronto Region, Progress Report and Update, March 1974.

(10) **Exhibit 319** (of the Airport Inquiry Commission) — Document C 15, Employee Shift Analysis and Employee Movement Forecasts, September 1973.

(11) **Exhibit 320** (of the Airport Inquiry Commission) — Document B 52, Employee Shift Analysis and Employee Movement Forecasts, March 1974.

(12) **Exhibit 431** (of the Airport Inquiry Commission) — Document B 57, 1972 Passenger Survey, March 1974.

(13) **Exhibit 458** (of the Airport Inquiry Commission) — Document B 56, N.T.I.A. — A Study of Road Access for 1980, March 1974.

(14) **Exhibit 516** (of the Airport Inquiry Commission) — C-6, NTIA Initial Stage of First Phase Development Schedules, April, 1973.

(15) **Exhibit 517** (of the Airport Inquiry Commission) — B66, NTIA Opening Date Summary Schedule, May 1974.

11. Evidence relating to Question 2 (c) in the *Order in Council* P.C. 1973-3026 which was categorized as Phase II, Question 1 (3) by the Commission in its Schedule of Hearings.

A. “Old” evidence (being Exhibits 3 and 7 of the Airport Inquiry Commission).

(a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.24 Passenger Distribution and Airport Assignment Study — Phase II, Stage 1, January 1972.

Tab 2.12 Malton Survey and Measurement Project — January 1972.

(b) **Exhibit 7** (of the Airport Inquiry Commission) being:

A 3 Aerodrome Standards, Physical Characteristics and Zoning Requirements, December 1973.

A 5 Design for Development: The Toronto-Centred Region, May 1970.

- A 6      Design for Development: A Status Report on the Toronto-Centred Region, August 1970.
- A 7      Annex of Understanding agreed by the Government of Canada and the Government of Ontario, March 1, 1972.
- A14      Summary Report: Planning of T.I.A. Malton December 1973.
- A19      Passenger Distribution and Airport Assignment Study Phase II — Stage 2 Airport Roles, April 1972.

B. "Other" evidence.

(a) Witnesses

Witness	Date	Transcript Page	Exhibits
Beinhaker, P.	May 21	4992 (c.e. Waterman)	none
Coulas, R.	May 21	4995 (c.e. Monaghan)	none
Elek, A.	May 21	4972 (c.e. Waterman)	none
		5000 (c.e. Monaghan)	none
		5009 (c.e. Monaghan)	none
Findlay, G.	May 21	5019	none
		5022 (c.e. Lockett)	none
		5026 (c.e. Stratton)	none

Witness	Date	Transcript Page	Exhibits
		5028	none
		(c.e. Waterman)	
Potvin, L.	May	4936	515,
	21		519,
			526

(b) Documentary (being Exhibits 11, 27, 37, 64, 66, 67, 309, 316, 317, 319, 320, 431, 458, 515, 519, 520, 521, 522, 523, 524 and 525 of the Airport Inquiry Commission).

(1) **Exhibit 11** (of the Airport Inquiry Commission) — Document B 19, Airspace Organization and Management in the Two Airport System, N.T.I.A. Pickering and T.I.A. Malton, December 1973.

(2) **Exhibit 27** (of the Airport Inquiry Commission) — Document B 39, Peak Hour Analysis, February 1974.

(3) **Exhibit 37** (of the Airport Inquiry Commission) — Document B 34, Noise Exposure Forecasts for T.I.A. Malton and N.T.I.A. Pickering, 1971-1985, February 1974.

(4) **Exhibit 64** (of the Airport Inquiry Commission) — Document B 40, Forecasts of Year 2000 Toronto Airports System Groundside Travel Demands for Scenario H, December 1973.

(5) **Exhibit 66** (of the Airport Inquiry Commission) — Letter of September 27, 1973 from W. Bidell of MTC to G.E. McDowell of MOT.

(6) **Exhibit 67** (of the Airport Inquiry Commission) — Letter of September 12, 1973 from G.E. McDowell of MOT to W. Bidell of MTC.

(7) **Exhibit 309** (of the Airport Inquiry Commission) — Document B 54, Supplement to Document B 34: The Effect of Curved Departures on Noise Exposures Forecasts, N.T.I.A. Pickering, March 1974.

(8) **Exhibit 316** (of the Airport Inquiry Commission) — Document B 16, The Impact of N.T.I.A. Pickering on the Toronto Region, December 1973.

(9) **Exhibit 317** (of the Airport Inquiry Commission) — Document B 43, The Impact of N.T.I.A. Pickering on the

Toronto Region, Progress Report and Update, March 1974.

(10) **Exhibit 319** (of the Airport Inquiry Commission) — Document C 15, Employee Shift Analysis and Employee Movement Forecasts, September 1973.

(11) **Exhibit 320** (of the Airport Inquiry Commission) — Document B 52, Employee Shift Analysis and Employee Movement Forecasts, March 1974.

(12) **Exhibit 431** (of the Airport Inquiry Commission) — Document B 57, 1972 Passenger Survey, March 1974.

(13) **Exhibit 458** (of the Airport Inquiry Commission) — Document B 56, N.T.I.A. — A Study of Road Access for 1980, March 1974.

(14) **Exhibit 515** (of the Airport Inquiry Commission) — B 65, Summary of Airport Roles and Traffic Assignment, Toronto Area Airports, May, 1974.

(15) **Exhibit 519** (of the Airport Inquiry Commission) — B 60, Financial Planning Estimates to the Year 2000 based on peak hour factor, March, 1974.

(16) **Exhibit 520** (of the Airport Inquiry Commission) — Panel entitled, “77 Zone System showing the Region of Indifference”.

(17) **Exhibit 521** (of the Airport Inquiry Commission) — Panel entitled, “Practical Options for assignment of traffic to TIA/NTIA”.

(18) **Exhibit 522** (of the Airport Inquiry Commission) — Panel entitled, “Major Traffic Segments”.

(19) **Exhibit 523** (of the Airport Inquiry Commission) — Chart entitled, “Possible Assignments of total O & D Traffic between NTIA and TIA in 1982”.

(20) **Exhibit 524** (of the Airport Inquiry Commission) — Chart entitled, “Criteria for evaluation of alternate roles TIA/NTIA”.

(21) **Exhibit 525** (of the Airport Inquiry Commission) — Panel entitled, “Summary of alternative opening roles NTIA 1980”.

12. Evidence relating to Question 2 (d) in the *Order in Council* PC.



1973-3026 which was categorized as Phase II, Question 1 (4) by the Commission in its Schedule of Hearings.

A. “Old” evidence (being Exhibits 3 and 7 of the Airport Inquiry Commission).

(a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.24 Passenger Distribution and Airport Assignment Study — Phase II, Stage 1, January 1972.

Tab 2.12 Malton Survey and Measurement Project — January 1972.

(b) **Exhibit 7** (of the Airport Inquiry Commission) being:

A 3 Aerodrome Standards, Physical Characteristics and Zoning Requirements, December 1973.

A 5 Design for Development: The Toronto-Centred Region, May 1970.

A 6 Design for Development: A Status Report on the Toronto-Centred Region, August 1970.

A 7 Annex of Understanding agreed by the Government of Canada and the Government of Ontario, March 1, 1972.

A14 Summary Report: Planning of T.I.A. Malton December 1973.

A19 Passenger Distribution and Airport Assignment Study Phase II — Stage 2 Airport Roles, April 1972.

B. “Other” evidence.

(a) **Witnesses**

Witness	Date	Transcript Page	Exhibits
Potvin, L.	May 21	4953	527, 528, 529

(b) Documentary (being Exhibits 11, 27, 37, 64, 66, 67, 309, 316, 317, 319, 320, 431, 458, 527, 528 and 529 of the Airport Inquiry Commission)

- (1) **Exhibit 11** (of the Airport Inquiry Commission) — Document B 19, Airspace Organization and Management in the Two Airport System, N.T.I.A. Pickering and T.I.A. Malton, December 1973.
- (2) **Exhibit 27** (of the Airport Inquiry Commission) — Document B 39, Peak Hour Analysis, February 1974.
- (3) **Exhibit 37** (of the Airport Inquiry Commission) — Document B 34, Noise Exposure Forecasts for T.I.A. Malton and N.T.I.A. Pickering, 1971-1985, February 1974.
- (4) **Exhibit 64** (of the Airport Inquiry Commission) — Document B 40, Forecasts of Year 2000 Toronto Airports System Groundside Travel Demands for Scenario H, December 1973.
- (5) **Exhibit 66** (of the Airport Inquiry Commission) — Letter of September 27, 1973 from W. Bidell of MTC to G.E. McDowell of MOT.
- (6) **Exhibit 67** (of the Airport Inquiry Commission) — Letter of September 12, 1973 from G.E. McDowell of MOT to W. Bidell of MTC.
- (7) **Exhibit 309** (of the Airport Inquiry Commission) — Document B 54, Supplement to Document B 34: The Effect of Curved Departures on Noise Exposures Forecasts, N.T.I.A. Pickering, March 1974.
- (8) **Exhibit 316** (of the Airport Inquiry Commission) — Document B 16, The Impact of N.T.I.A. Pickering on the Toronto Region, December 1973.
- (9) **Exhibit 317** (of the Airport Inquiry Commission) — Document B 43, The Impact of N.T.I.A. Pickering on the Toronto Region, Progress Report and Update, March 1974.
- (10) **Exhibit 319** (of the Airport Inquiry Commission) — Document C 15, Employee Shift Analysis and Employee Movement Forecasts, September 1973.
- (11) **Exhibit 320** (of the Airport Inquiry Commission) — Document B 52, Employee Shift Analysis and Employee Movement Forecasts, March 1974.

(12) **Exhibit 431** (of the Airport Inquiry Commission) — Document B 57, 1972 Passenger Survey, March 1974.

(13) **Exhibit 458** (of the Airport Inquiry Commission) — Document B 56, N.T.I.A. — A Study of Road Access for 1980, March 1974.

(14) **Exhibit 527** (of the Airport Inquiry Commission) — Panel entitled, “NTIA Summary Schedules”.

(15) **Exhibit 528** (of the Airport Inquiry Commission) — Panel entitled, “Comparison of Terminal Building Requirements NTIA or West Dev’t., TIA”.

(16) **Exhibit 529** (of the Airport Inquiry Commission) — Panel entitled, “Scheme B2 for Estimate to Year 2000 for Financial Planning Model Based on Peak Hour Passengers”.

13. Evidence relating to Question 2 (e) in the *Order in Council* P.C. 1973-3026 which was categorized as Phase II, Question 1 (5) by the Commission in its Schedule of Hearings.

A. “Old” evidence (being Exhibits 3 and 7 of the Airport Inquiry Commission).

(a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.24 Passenger Distribution and Airport Assignment Study — Phase II, Stage 1, January 1972.

Tab 2.12 Malton Survey and Measurement Project — January 1972.

(b) **Exhibit 7** (of the Airport Inquiry Commission) being:

A 3 Aerodrome Standards, Physical Characteristics and Zoning Requirements, December 1973.

A 5 Design for Development: The Toronto-Centred Region, May 1970.

A 6 Design for Development: A Status Report on the Toronto-Centred Region, August 1970.

A 7 Annex of Understanding agreed by the

Government of Canada and the Government of Ontario, March 1, 1972.

A14 Summary Report: Planning of T.I.A. Malton December 1973.

A19 Passenger Distribution and Airport Assignment Study Phase II — Stage 2 Airport Roles, April 1972.

B. "Other" evidence.

(a) **Witnesses**

<b>Witness</b>	<b>Date</b>	<b>Transcript Page</b>	<b>Exhibits</b>
Potvin, L.	May 21	4958	516, 517, 530
Wentzell, R.	May 21	4978 (c.e. Waterman)	
Wiley, P.	May 21	4981 (c.e. Waterman)	

(b) Documentary (being Exhibits 11, 27, 37, 64, 66, 67, 309, 316, 317, 319, 320, 431, 458, 516, 517 and 530 of the Airport Inquiry Commission).

(1) **Exhibit 11** (of the Airport Inquiry Commission) — Document B 19, Airspace Organization and Management in the Two Airport System, N.T.I.A. Pickering and T.I.A. Malton, December 1973.

(2) **Exhibit 27** (of the Airport Inquiry Commission) — Document B 39, Peak Hour Analysis, February 1974.

(3) **Exhibit 37** (of the Airport Inquiry Commission) — Document B 34, Noise Exposure Forecasts for T.I.A. Malton and N.T.I.A. Pickering, 1971-1985, February 1974.

(4) **Exhibit 64** (of the Airport Inquiry Commission) — Document B 40, Forecasts of Year 2000 Toronto Airports System Groundside Travel Demands for Scenario H, December 1973.

(5) **Exhibit 66** (of the Airport Inquiry Commission) —

Letter of September 27, 1973 from W. Bidell of MTC to G.E. McDowell of MOT.

(6) **Exhibit 67** (of the Airport Inquiry Commission) — Letter of September 12, 1973 from G.E. McDowell of MOT to W. Bidell of MTC.

(7) **Exhibit 309** (of the Airport Inquiry Commission) — Document B 54, Supplement to Document B34: The Effect of Curved Departures on Noise Exposures Forecasts, N.T.I.A. Pickering, March 1974.

(8) **Exhibit 316** (of the Airport Inquiry Commission) — Document B 16, The Impact of N.T.I.A. Pickering on the Toronto Region, December 1973.

(9) **Exhibit 317** (of the Airport Inquiry Commission) — Document B 43, The Impact of N.T.I.A. Pickering on the Toronto Region, Progress Report and Update, March 1974.

(10) **Exhibit 319** (of the Airport Inquiry Commission) — Document C 15, Employee Shift Analysis and Employee Movement Forecasts, September 1973.

(11) **Exhibit 320** (of the Airport Inquiry Commission) — Document B 52, Employee Shift Analysis and Employee Movement Forecasts, March 1974.

(12) **Exhibit 431** (of the Airport Inquiry Commission) — Document B 57, 1972 Passenger Survey, March 1974.

(13) **Exhibit 458** (of the Airport Inquiry Commission) — Document B 56, N.T.I.A. — A Study of Road Access for 1980, March 1974.

(14) **Exhibit 516** (of the Airport Inquiry Commission) — Document C 6, NTIA Initial Stage of First Phase Development Schedules, April 1973.

(15) **Exhibit 517** (of the Airport Inquiry Commission) — Document B 66, NTIA Opening Date Summary Schedule, May 1974

(16) **Exhibit 530** (of the Airport Inquiry Commission) — Chart entitled, “Costs — Peak Hours Passengers Discounted to 1973 at 8 percent”.

14. Evidence relating to Question 2(f)(i) in the *Order in Council*

P.C. 1973-3026 which was categorized as Phase II, Question 2(1) by the Commission in its Schedule of Hearings.

A. "Old" evidence (being Exhibits 3, 107, 108 and 7 of the Airport Inquiry Commission).

(a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.24 Passenger Distribution and Airport Assignment Study — Phase II, Stage 1, January 1972.

Tab 13.5 Ground Transportation to the new Toronto Airport, May 4, 1972.

Tab 13.20 Toronto International Airport, Ground Transportation Travel Surveys, August 1969.

Tab 13.29 Ground Transportation Cost Analysis — Alternative Airport Systems, February 1972.

Tab 13.45 Toronto II Downtown and Malton Passenger Processing, Review of Studies, February 1971.

(b) **Exhibit 107** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 13.19 Report on Ground Transportation Requirements for Toronto Airport II — April 1970.

Tab 13.28 A Study of Toronto Airports II — Ground Transportation to Year 2000, November 1970.

(c) **Exhibit 108** (of the Airport Inquiry Commission) being the following Provincial Document: Provincial Document XI — Ground Transportation Review of Sites E and F (Provincial Document tabled June 6, 1972)

(d) **Exhibit 7** (of the Airport Inquiry Commission) being:

A 7      Annex of Understanding agreed by the Government of Canada and the Government of Ontario, March 1, 1972.

A 8      Toronto Commuter Rail Study, November 1972.

A19      Passenger Distribution and Airport Assignment Study, Phase II, Stage 2, Airport Roles, April 1972.



A21      An Urban Transportation Policy for Ontario, November 22, 1972. Statement by The Honourable William G. Davis, Premier of Ontario.

B. "Other" evidence.

(a) Witnesses

Witness	Date	Transcript Page	Exhibits
Atherton, D.L.	June 4	5311	549
	June 4	5327 (c.e. Stratton)	None
		5328 (c.e. Dunne)	None
Beinhaker, P.	June 3	5137 (c.e. Macaulay)	545 ABC
Glenn, C.H.	June 4	5331	550
Kriss, H.W.	June 3	5078	541, 542
	June 3	5122 (c.e. Stratton)	545 ABC
	June 3	5126 (c.e. Macaulay)	545 ABC
Pearson, Dr. P.	June 3	5059	535- 540
Potvin, L.G.	June 3	5109	543- 544
	June 3	5132 (c.e. Macaulay)	545 ABC

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Witness	Date	Transcript Page	Exhibits
Shaver, P.D.	June	5155	None
	3		
	June	5184	None
	3	(c.e. Weir)	
		5195	None
		(c.e. Dunne)	
Sullivan, T.M. Vance, J.		5207	None
		(c.e. Waller)	
	June	5481	None
	5		
	June	5043	532-
	3		534
	June	5129	545
	3	(c.e. Macaulay)	ABC

(b) Documentary (being Exhibits 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545A, 545B, 545C, 549 and 550 of the Airport Inquiry Commission).

(1) **Exhibit 532** (of the Airport Inquiry Commission) — Panel entitled “Existing or Committed Regional Highway Network”.

(2) **Exhibit 533** (of the Airport Inquiry Commission) — Panel of existing and committed Rapid Transit Network.

(3) **Exhibit 534** (of the Airport Inquiry Commission) — Panel entitled “Test Network Possible Transit Access to Toronto Airports”.

(4) **Exhibit 535** (of the Airport Inquiry Commission) — Document entitled “A Review of Model Split Experience in Airport Ground Access Planning”.

(5) **Exhibit 536** (of the Airport Inquiry Commission) — Chart entitled “Available Access Trips — 1972 Two-Way Person Trips by Air Passengers”.

(6) **Exhibit 537** (of the Airport Inquiry Commission) — Chart entitled “Available Access Modes — World Airports 1972”.

(7) **Exhibit 538** (of the Airport Inquiry Commission) — Panel entitled “Ground Access Patronage by Private Modes-Selected Airports — 1972.

(8) **Exhibit 539** (of the Airport Inquiry Commission) — Panel entitled “Existing and Proposed Transit Services at Selected Airports — Actual and Projected Patronage”.

(9) **Exhibit 540** (of the Airport Inquiry Commission) — Panel entitled “Airports with Off-Site Terminals — 1972”

(10) **Exhibit 541** (of the Airport Inquiry Commission) — Report B68, entitled “Off-Site Terminal and Transit Systems, First Stage Evaluation”.

(11) **Exhibit 542** (of the Airport Inquiry Commission) — Copy of slides being presented by Mr. Kriss.

(12) **Exhibit 543** (of the Airport Inquiry Commission) — Panel entitled “Report to Metro Centre Transportation Task Force on Airport Passenger Demand and Metro Centre Remote Processing Facilities, October 1973”.

(13) **Exhibit 544** (of the Airport Inquiry Commission) — Chart entitled “Metro Centre Air Terminal Catchment Area (Year 2000)”

(14) **Exhibit 545A** (of the Airport Inquiry Commission) — Final Act and related documents of the International Civil Aviation Conference.

(15) **Exhibit 545B** (of the Airport Inquiry Commission) — *Aeronautics Act*.

(16) **Exhibit 545C** (of the Airport Inquiry Commission) — Letter from Mr. MacKinnon to Mr. McCreath.

(17) **Exhibit 549** (of the Airport Inquiry Commission) — Two slides referred to by the witness Atherton.

(18) **Exhibit 550** (of the Airport Inquiry Commission) — Copy of slides shown by Mr. Glenn.

15. Evidence relating to Question 2(f)(ii) in the *Order in Council* P.C. 1973-3026 which was categorized as Phase II, Question 2(2) by the Commission in its Schedule of Hearings.

A. “Old” evidence (being Exhibits 3, 107, 108 and 7 of the Airport Inquiry Commission).

(a) **Exhibit 3** (of the Airport Inquiry Commission) (being

part of documentary evidence given at Expropriation Hearing of Swackhamer)

Tab 1.24 Passenger Distribution and Airport Assignment Study – Phase II, Stage 1, January 1972.

Tab 13.5 Ground Transportation to the New Toronto Airport, May 4, 1972.

Tab 13.20 Toronto International Airport, Ground Transportation Travel Surveys, August 1969.

Tab 13.29 Ground Transportation Cost Analysis – Alternative Airport Systems, February 1972.

Tab 13.45 Toronto II Downtown and Malton Passenger Processing, Review of Studies, February 1971.

- (b) **Exhibit 107** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 13.19 Report on Ground Transportation Requirements for Toronto Airport II – April 1970.

Tab 13.28 A Study of Toronto Airports II – Ground Transportation to Year 2000, November 1970.

- (c) **Exhibit 108** (of the Airport Inquiry Commission) being the following Provincial Document: Provincial Document XI – Ground Transportation Review of Sites E and F (Provincial Document tabled June 6, 1972).
- (d) **Exhibit 7** (of the Airport Inquiry Commission) being:

A 7      Annex of Understanding agreed by the Government of Canada and the Government of Ontario, March 1, 1972.

A 8      Toronto Commuter Rail Study, November 1972.

A19      Passenger Distribution and Airport Assignment Study, Phase II, Stage 2, Airport Roles, April 1972.

A21      An Urban Transportation Policy for Ontario, November 22, 1972. Statement by The Honourable William G. Davis, Premier of Ontario.

B. “Other” evidence.

(a) Witnesses

Witness	Date	Transcript Page	Exhibits
Atherton, D.L.	June 4	5311	549
	June 4	5327 (c.e. Stratton)	none
	5328 (c.e. Dunne)		none
Glenn, C.H.	June 4	5331	550
	June 4	5356 (c.e. Weir)	none
		5401 (c.e. Waterman)	none
		5432 (c.e. Stevens)	none
Shaver, P.D.	June 3	5155	none
Sullivan, T.M.	June 5	5481	none
	June 5	5555 (c.e. Waller)	none

(b) Documentary (being Exhibits 549 and 550 of the Airport Inquiry Commission)

(1) **Exhibit 549** (of the Airport Inquiry Commission) —  
Two slides referred to by the witness Atherton

(2) **Exhibit 550** (of the Airport Inquiry Commission) —  
Copy of slides shown by Mr. Glenn

16. Evidence relating to Question 2(g) in the *Order in Council* P.C. 1973-3026 which was categorized as Phase II, Question 2(3) by the Commission in its Schedule of Hearings.

A. "Old" evidence (being Exhibits 3, 107, 108, and 7 of the Airport Inquiry Commission).

(a) **Exhibit 3** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 1.24 Passenger Distribution and Airport Assignment Study — Phase II, Stage 1, January 1972.

Tab 13.5 Ground Transportation to the New Toronto Airport, May 4, 1972.

Tab 13.20 Toronto International Airport, Ground Transportation Travel Surveys, August 1969.

Tab 13.29 Ground Transportation Cost Analysis — Alternative Airport Systems, February 1972.

Tab 13.45 Toronto II Downtown and Malton Passenger Processing, Review of Studies, February 1971.

(b) **Exhibit 107** (of the Airport Inquiry Commission) (being part of documentary evidence given at Expropriation Hearing of Swackhamer).

Tab 13.19 Report on Ground Transportation Requirements for Toronto Airport II — April 1970.

Tab 13.28 A Study of Toronto Airports II — Ground Transportation to Year 2000, November 1970.

(c) **Exhibit 108** (of the Airport Inquiry Commission) being Provincial Document XI — Ground Transportation Review of Sites E and F (Provincial Document tabled June 6, 1972)

(d) **Exhibit 7** (of the Airport Inquiry Commission) being:

A 7 Annex of Understanding agreed by the Government of Canada and the Government of Ontario, March 1, 1972.

A 8 Toronto Commuter Rail Study, November 1972

A19 Passenger Distribution and Airport Assignment Study, Phase II, Stage 2, Airport Roles, April 1972.

A21 An Urban Transportation Policy for Ontario, November 22, 1972. Statement by



The Honourable William G. Davis, Premier of Ontario.

B. "Other" evidence.

(a) Witnesses

Witness	Date	Transcript Page	Exhibits
Beinhaker, P.	June 3	5137 (c.e. Macaulay)	545 A,B,C
Glenn, C.H.	June 4 June 4	5331 5395 (c.e. Stratton)	550 None
Kriss, H.W.	June 3 June 3	5078 5126 (c.e. Macaulay)	541- 542 545 A,B,C
Pearson, Dr. P.	June 3	5059	535- 540
Potvin, L.G.	June 3	5109	543- 544
Shaver	June 3 June 3	5155 5184 (c.e. Weir)	None None
Sullivan	June 5	5481	None
Vance	June 3	5129 (c.e. Macaulay)	545 A,B,C

(b) Documentary (being Exhibits 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545A, 545B, 545C and 550 of the Airport Inquiry Commission).

(1) **Exhibit 535** (of the Airport Inquiry Commission) — Document entitled "A Review of Model Split Experience in Airport Ground Access Planning".

- (2) **Exhibit 536** (of the Airport Inquiry Commission) – Chart entitled “Available Access Trips – 1972 Two-Way Person Trips by Air Passengers.
- (3) **Exhibit 537** (of the Airport Inquiry Commission) – Chart entitled “Available Access Modes – World Airports 1972”
- (4) **Exhibit 538** (of the Airport Inquiry Commission) – Panel entitled “Ground Access Patronage by Private Modes – Selected Airports – 1972”
- (5) **Exhibit 539** (of the Airport Inquiry Commission) – Panel entitled “Existing and Proposed Transit Services at Selected Airports – Actual and Projected Patronage”.
- (6) **Exhibit 540** (of the Airport Inquiry Commission) – Panel entitled “Airports with Off-Site Terminals – 1972”
- (7) **Exhibit 541** (of the Airport Inquiry Commission) – Report B68, entitled “Off-Site Terminal and Transit Systems, First Stage Evaluation”.
- (8) **Exhibit 542** (of the Airport Inquiry Commission) – Copy of slides being presented by Mr. Kriss.
- (9) **Exhibit 543** (of the Airport Inquiry Commission) – Panel entitled “Report to Metro Centre Transportation Task Force on Airport Passenger Demand and Metro Centre Remote Processing Facilities, October 1973.
- (10) **Exhibit 544** (of the Airport Inquiry Commission) – Chart entitled “Metro Centre Air Terminal Catchment Area (Year 2000)”
- (11) **Exhibit 545A** (of the Airport Inquiry Commission) – Final Act and related documents of the International Civil Aviation Conference.
- (12) **Exhibit 545B** (of the Airport Inquiry Commission) – *Aeronautics Act*.
- (13) **Exhibit 545C** (of the Airport Inquiry Commission) – Letter from Mr. MacKinnon to Mr. McCreath.
- (14) **Exhibit 550** (of the Airport Inquiry Commission) – Copy of slides shown by Mr. Glenn.

**APPENDIX 7**

**REGISTRAR-ADMINISTRATOR'S MINUTES  
OF**

**PUBLIC HEARINGS OF THE  
AIRPORT INQUIRY COMMISSION**

**THE AIRPORT INQUIRY COMMISSION**

Sitting at Malton this 20th day of February 1974 at 8:30 p.m.

Present: The Honourable Mr. Justice Hugh F. Gibson — Chairman  
Murray V. Jones, Esq. and Dr. Howard E. Petch —  
Commissioners

Organizational Hearing to determine the procedure that will be followed at the Public Hearing and the role of any Counsel at such Hearing in respect to the following matters:

The Government of Canada has made forecasts as to the volume of passenger, air cargo, and aircraft movements in the central Ontario market to the year 2000. On the basis of these forecasts, (without receiving any new evidence at this time as to the validity of these forecasts, as such evidence will be received at subsequent hearings), in relation to the following questions of fact, is there any new evidence that Toronto International Airport, Malton, can be expanded or reconfigured within present boundaries to meet all reasonable needs to the year 1980, to the year 1990 and to the year 2000, that is to say:

1. Can the forecast growth of air traffic be met without increasing the number of people affected by noise disturbance from aircraft?
2. Can the runway capacity be extended to meet the forecast growth of air traffic?
3. Can the terminal capacity be increased to meet the forecast growth of air traffic?
4. Can ground access be provided to meet the forecast growth of air traffic?

Mr. Ralph S. McCreath, Q.C. and Mr. Barry A. Monaghan appear as Counsel for the Commission.

Donald J. Wright, Q.C.

Bruce McDonald

Donald MacOdum

R.N. Waterman

for People or Planes

*Airport Inquiry Commission Report*

J. Donald Bell, Q.C.	for deHavilland Aircraft of Canada, Limited
L. Band	for Air Canada
G. Marsden L. Laine	for The Corporation of the City of Brampton
Leonard W. Stewart, Q.C.	for The Regional Municipality of Peel
Gary Smith	for the City of Mississauga
Edgar Sexton Thomas Dunne	for the Government of Canada
Sinclair Stevens, M.P.	on his own behalf
James Skells, Q.C.	for the Society for Aircraft Noise Abatement (SANA)
John Bickley	for New Airport Now (NAN)
Gordon Kerr	for the Humberlea Resident's Association
Brian Dunn	private citizen
Gerry Stratford	private citizen

The Chairman introduces the members of the Commission and makes an introductory address.

Mr. Ralph S. McCreath, Q.C. makes an opening statement and refers to organizations, persons and corporations who will have counsel.

Mr. Barry A. Monaghan outlines procedures to be followed at the Public Hearings at Malton on March 18, 1974.

The Chairman calls on counsel for the Government of Canada.

Mr. Sexton responds.

The Chairman calls on counsel for The Municipality of Metropolitan Toronto and The Metropolitan Toronto Planning Board. Not present.

The Chairman calls on counsel for the City of Toronto. Not present.

The Chairman calls on counsel for the Borough of Etobicoke. Not present.

The Chairman calls on counsel for The Regional Municipality of Peel. Mr. Leonard Stewart responds.

The Chairman calls on counsel for the City of Mississauga. Mr. Gary Smith responds for Mr. Weir, Senior Counsel for the City.

The Chairman calls on counsel for the Canadian Air Line Pilots Association. Not present.

The Chairman calls on counsel for the Canadian Air Traffic Controllers Association. Not present.

The Chairman calls on counsel for the de Havilland Aircraft of Canada, Limited. Mr. J. Donald Bell, Q.C. responds.

The Chairman calls on counsel for People or Planes (POP). Mr. Donald Wright, Q.C. responds.

The Chairman calls on counsel for the Society for Aircraft Noise Abatement (SANA). Mr. James Skells, Q.C. responds.

The Chairman calls upon Mr. Sinclair Stevens, M.P. who advises for Mr. Ron Atkey, M.P., as well as for himself, and requests leave to engage counsel. Granted.

People or Planes through its counsel, D.J. Wright, Q.C., files.

Exhibit 1 — List of suggestions for additional topics or questions for the Commission.

The de Havilland Aircraft of Canada, Limited, through its counsel, J. Donald Bell, Q.C. files.

Exhibit 2 — Letter dated February 8, 1974 to R.S. McCreath, Q.C. from the de Havilland Aircraft of Canada, Limited.

The Chairman calls upon counsel for the City of Brampton. Mr. Marsden responds.

The Chairman calls upon counsel for Air Canada. Mr. Ian E. MacPherson responds.

Mr. Barney Danson, M.P. indicates he will make representations on behalf of his constituency.

Mr. John Bickley, representing New Airport Now, indicates that body will make representations.

Mrs. Burger, private citizen, advises that she will file an evidence statement.

Mr. Gordon Kerr, private citizen, of Humberlea advises he will file an evidence statement.

Mr. Brian Dunn, private citizen, advises he will file an evidence statement.

Mr. Lievig, private citizen, advises he will file an evidence statement.

Mr. Ian Hamer, private citizen, Whitby, advises he will file an evidence statement.

Mr. Stratford, private citizen, advises he will file an evidence statement.

At 10:30 p.m. the Hearing was adjourned.

Signed  
J.W.N. Delorme  
Registrar

**Sitting at Pickering this 21st day of February, 1974 at 8:30 p.m.**

Present: The Honourable Mr. Justice Hugh F. Gibson — Chairman  
Murray V. Jones, Esq. and Dr. Howard E. Petch —  
Commissioners

Organizational Hearing with respect to the following questions:

In relation to the following three questions of fact is there any new evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:

1. Is this site not suitable because of the number of people that will be affected by noise disturbance from aircraft?
2. Is this site not suitable because of regional economic effect?
3. Is this site not suitable because of total environmental effect?

Mr. Ralph S. McCreath, Q.C. and Mr. Robert W. Macaulay, Q.C. appear as Commission Counsel.

Donald MacOdrum and  
R.N. Waterman

for People or Planes (POP)

P.W. Lockett

for the City of Mississauga and  
Regional Municipality of Peel



J.R. Boxma	for The Corporation of the Town of Pickering.
James Taylor	for the Town of Markham
Bob Waller	for the de Havilland Aircraft of Canada, Limited
Ron Huck	for Norm Cafik, M.P.
Paul W.J. Mingay, Q.C.	for the Town of Whitchurch- Stouffville

Edgar Sexton and Thomas Dunne for the Government of Canada

The Chairman makes an opening statement and introduces the members of the Commission.

Mr. Ralph S. McCreath, Q.C. General Counsel, makes an opening statement.

Mr. Robert W. Macaulay, Q.C. makes a statement on procedure re conduct of Public Hearings.

The Chairman calls on:

Counsel for the Town of Markham. Mr. James A. Taylor responds and agrees to the procedures outlined.

Counsel for the Town of Whitchurch-Stouffville, Mr. Paul W.J. Mingay, Q.C. responds and agrees to the procedures outlined.

Counsel for the Town of Pickering, Mr. J.R. Boxma responds and agrees to the procedures outlined.

Counsel for People or Planes. Mr. D.H. MacOdrum responds and takes issue with the procedures and files.

Exhibit 1. — Letter, February 21, 1974, Donald J. Wright to R.S. McCreath

Mr. Victor A. Thompson addresses the Commission on the matter of procedure.

Mr. Ian Hamer is heard on procedural matters and indicates that he will file an evidence statement.

Mr. Charles Neville of R.R. 1, Locust Hill, addresses the Commission with respect to briefs.

Mr. Dan Mitchell of R.R. 1, Locust Hill, Green River, indicates he will file an evidence statement.

Margaret Searle of 799 Oliver Street, Bay Ridges advises she will file an evidence statement.

David Ritchie of R.R. 1, Markham advises he will file an evidence statement.

C.G. Wilson, Box 10, Whitevale, Ont. advises that the Whitevale and Area Residents Association may file an evidence statement.

Mr. Robert Adams of Markham, Ontario makes comments.

Mr. John Livingston of R.R. 1, Locust Hill, comments on the conduct of the hearings but indicates he will file an evidence statement.

Miss Anne Wanstall of R.R. 2, Claremont comments on the Hearings.

Mr. Ian Hamer is heard on suggestions re technical evidence.

Dr. J.M. Emerson, R.R. Unionville indicates he will file an evidence statement.

At 10:00 p.m. the Hearing adjourned.

Signed  
J.W.N. Delorme,  
Registrar.

**Sitting at Toronto this 22nd day of February, 1974.**

Present: The Honourable Mr. Justice Hugh F. Gibson — Chairman  
Murray V. Jones, Esq. and Dr. Howard E. Petch —  
Commissioners

Organizational Hearing with respect to the following matters:

The Government of Canada has made forecasts as to the traffic volume of passenger, air cargo and aircraft movements to the year 2000.

The Questions for consideration are:

- A(1) Is there any new evidence as to what is the expected maximum passenger traffic volume in the domestic, trans-border and international air traffic markets for the year 1980?
- (2) for the year 1990?
- (3) for the year 2000?
- B. In relation to the following questions is there any new evidence to prove that the site near Pickering, Ontario, is not suitable for the New International Airport for the central Ontario market, that is to say:

- (1) Is this site not suitable because of passenger inconvenience?
- (2) Is this site not suitable because of the on-site and off-site facilities that will be required to be built such as roads, railways, guideways, helicopter facilities, etc.?

Mr. Ralph S. McCreath, Q.C. and Mr. Robert W. Macaulay, Q.C. appear as Commission Counsel.

B.J. MacKinnon, Q.C. and  
Thomas Dunne

for the Government of Canada

J.R. Boxma

for The Corporation of the  
Town of Pickering

D.J. Wright, Q.C.

D.H. MacOdrum

for People or Planes

R.N. Waterman

J.D. Bell, Q.C.

for the de Havilland Aircraft of  
Canada, Limited.

The Chairman makes an opening statement.

Mrs. Isobel Thompson of Whitevale, Ontario, addresses the Commission.

Mr. D.J. Wright, Q.C. of People or Planes addresses the Commission and files.

Exhibit 1 — Letter, February 22, 1974 to B. J. MacKinnon from D.J. Wright.

Mr. Wright is heard further on procedure at Public Hearings and files.

Exhibit 2 — Letter, February 21, 1974 to Ralph S. McCreath from D.J. Wright.

Mr. B.J. MacKinnon, Q.C., Counsel for Government of Canada addresses the Commission.

3:15 Hearing adjourned.

Signed  
J.W.N. Delorme  
Registrar.

**Sitting at Malton, Monday, the 18th day of March 1974, at 6:00 p.m.**

Present: The Honourable Mr. Justice Hugh F. Gibson — Chairman  
Murray V. Jones, Esq., and Dr. Howard E. Petch —  
Commissioners

Public Hearing with respect to the following matters:

The Government of Canada has made forecasts as to the volume of passenger, air cargo and aircraft movements to the central Ontario market to the year 2000. On the basis of these forecasts (without receiving any new evidence at this time as to the validity of these forecasts as such evidence will be received at subsequent hearings), in relation to the following questions of fact, is there any new evidence that Toronto International Airport, Malton, can be expanded or reconfigured within its present boundaries to meet all reasonable needs to the year 1980, to the year 1990 and to the year 2000, that is to say:

1. Can the forecast growth of air traffic be met without increasing the number of people affected by noise disturbance from aircraft?
2. Can the runway capacity be extended to meet the forecast growth of air traffic?
3. Can the terminal capacity be increased to meet the forecast growth of air traffic?
4. Can ground access be provided to meet the forecast growth of air traffic?

**APPEARANCES**

R.S. McCreath, Q.C.

B.A. Monaghan

Wayne Gay

Commission Counsel

B.J. MacKinnon, Q.C.

Thomas Dunne

for Government of Canada

D.J. Wright, Q.C.

D.H. MacOdrum

R.N. Waterman

for The City of Toronto

J.D. Bell, Q.C.	
K. Vaughan	for de Havilland Aircraft of Canada, Limited
R. Waller	
Remi Lafrenière	for Air Canada
L.W. Stewart, Q.C.	for The Regional Municipality of Peel
P.W. Mingay, Q.C.	for The Town of Whitchurch- Stouffville
W.P. Butler	for the Borough of Etobicoke
J.T. Weir, Q.C.	
P. Lockett	for the City of Mississauga
G.H. Marsden	for the City of Brampton
N.R. Boxma	for the Town of Pickering

Mr. Monaghan reads into the record the affidavit of J.W. Norman Delorme, Registrar-Administrator of the Airport Inquiry Commission and requests that it be filed. So ordered.

Exhibit 1 — Affidavit of J.W. Norman Delorme

Mr. Monaghan addresses the Commission and advises that Commission Counsel will ask questions by persons not represented if approached.

Mr. Monaghan outlines procedure on evidence presented by the Government of Canada.

Mr. D.J. Wright, Q.C. advises he will now appear for the City of Toronto and will retire as counsel for People or Planes.

Mr. Wright then continues to address the Commission on the views of People or Planes and with respect to the constitution of the Commission with respect to Commissioner Jones.

Mr. Wright then reads a statement requested to be made by his new client, the City of Toronto, and poses questions to the Commission on behalf of the City.

Mr. MacKinnon opens and outlines the evidence he will bring on the questions relevant to this hearing.

Exhibit 2 — Written Summary and References and Appendices

Exhibit 3 — Documents relating to Questions 1 through 18 as listed in the enclosure to the letter from J.J. Robinette, Q.C. to

D. Jamieson dated May 25, 1972, found in the References and Appendices to the Government's Written Summary, i.e.

1.1, 1.2, 1.3, 1.5, 1.7, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.16, 1.17, 1.18, 1.19, 1.23, 1.24, 1.26, 1.27

2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14,

3.1, 3.2,

4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8,

5.1, 5.2, 5.3, 5.4,

6.1, 6.2, 6.3, 6.4,

7.1, 7.2, 7.3,

8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11, 8.12, 8.13, 8.14, 8.15,

9.1, 9.2, 9.3, 9.4, 9.6, 9.7, 9.8, 9.9, 9.10, 9.11

11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7, 11.8,

12.1, 12.2, 12.3, 12.4, 12.5,

13.4, 13.5, 13.20, 13.23, 13.27, 13.29, 13.30, 13.38, 13.45

17.1,

18.1, 18.6, 18.7.

Exhibit 4 — Some of the Provincial Documents tabled on June 6, 1972 in the Ontario Legislature, i.e.

IA, IB, I, II, III, VI, VII, VIII, IX.

Exhibit 5 — Transcript of testimony before J.W. Swackhamer, Q.C., (Volumes HTI to HTXII)

Exhibit 6 — Exhibits presented before J.W. Swackhamer, Q.C. (Exhibits I to 87)

Exhibit 7 — Reports and statements made on or prior to January 30, 1973.

A1, A2, A3, A5, A6, A7, A8, A9, A11, A13, A14, A16, A19, A20, A21, A22, A23, A24, A25, A26, A27, A28.

Exhibit 8 — Documents numbered as C series properly part of preceding exhibit,

C1, C2, C3.

HUGH DEVITT called, sworn and examined by Mr. MacKinnon.

Exhibit 9 — Plan, Malton Airport

Exhibit 10 — Photo, Malton Airport

CHARLES NEIL SIMPSON called, sworn and examined by Mr. MacKinnon.



Exhibit 11(B-19) — Airspace Organization and Management in the Two Airport System, NTIA Pickering and TIA Malton

T.D.F. ROSS called, sworn and examined by Mr. MacKinnon.

Exhibit 12 (B-1) — Summary of Forecasts, December 1973

Exhibit 13 — Chart showing Actual and Forecast Enplaned and Deplaned Passengers for Toronto Area Airports System.

Exhibit 14 — Chart showing Actual and Forecast Enplaned and Deplaned Passengers for Toronto Area Airport System.

Exhibit 15 — Chart showing Toronto Airport System Sector Mix O/D Passengers.

Exhibit 16 — Chart showing Actual and Forecast Enplaned and Deplaned Cargo for Toronto Area Airports System.

Exhibit 17 — Chart showing Actual and Forecast Enplaned and Deplaned Cargo for Toronto Area Airports System.

Exhibit 18 — Chart showing Actual and Forecast General Aircraft Movements which must be handled at a major air carrier airport.

Exhibit 19 — Chart showing Actual and Forecast General Aircraft Movements which must be handled at a major air carrier airport.

At 10:00 p.m. the Hearing adjourned to tomorrow at 6:00 p.m.

**Tuesday, the 19th day of March, 1974 at 6:00 p.m.**

Mr. Monaghan sets out the schedule of the remainder of the Hearings at Malton.

Mr. MacKinnon files a summary.

Exhibit 20 — Summary Toronto Area Airports Forecast 1980/1990/2000 Air Passenger, Air Cargo, and Aircraft Movements.

ANDREW ELEK called, sworn and examined by Mr. MacKinnon.

Exhibit 21 (B-5) — Aircraft Movement Forecasts — update April, 1973

Exhibit 22 — Chart — Air Passenger Forecasts

Exhibit 23 — Chart — Sensitivity Comparison of Existing Forecast with New Forecast.

Exhibit 24 — Chart — Table A, Annual Movements Aircraft Table 4 in Exhibit 21.

Exhibit 25 — Chart — Toronto Hub-Forecast Annual Aircraft Movements.

Exhibit 26 — Chart — Average Daily Aircraft Movements.

Exhibit 27 (B-39) — Peak Hour Analysis and Forecast for the Toronto Airport System, February 1974.

Exhibit 28 — Chart — Hourly Aircraft and Passengers

Exhibit 29 — Chart — Scheduled Peak Hour Aircraft Movements — Two Ways, Toronto.

Exhibit 30 — Chart — Scheduled Peak Hour Aircraft Movements — Two Ways, Toronto.

Exhibit 31 — Chart — Design, Peak Hour Deplaned Passengers Toronto.

PHILIP MICHAEL LEE PEARSON called, sworn and examined by Mr. MacKinnon.

Exhibit 32 — Revised Air Freightler Movements Forecasts 1970-2000 April 1973.

Exhibit 33 — Chart — Forecast of Air Freightler Movements for the Toronto Area.

Exhibit 34 — Chart — Forecast of Air Freightler Movements for the Toronto Region.

Exhibit 35 (B-29) — A review of STOL Forecasts for Toronto Region January 1974

Exhibit 45 — Chart — showing Nine Common Daily Activities.

Exhibit 46 — Chart — Statistical Relationship Between Noise Exposure and Annoyance.

Exhibit 47 (B-37) — Prediction of Number of Highly Annoyed Residents within NEF 28 Contours for various roles of NTIA, Pickering and TIA, Malton, dated February 1974.

Exhibit 48 — Chart — Percent of a Population Sample Found to be Highly Annoyed as a Function of Noise Exposure.

Exhibit 49 — Chart — Disturbance from Flight Operations 1980.

Exhibit 50 (B-38) — Longitudinal Trends in Community Response to Aircraft Noise of February 1974.

Exhibit 51 — Chart — Attitudes About the Neighbourhood

Exhibit 52 — Chart — Changes in Subjective Evaluations

Mr. MacKinnon calls on all supporting witnesses in panel for cross-examination.

The following is the panel:

Donald Stone

George McKee

Peter Tidd

Leonard Fitton

Brian Smith

Narendra Noshi

All duly sworn

Jean Marc Choukroun

Geoffrey Richard Hutchison

Francis Gerard Flynn

Russell Gwilliam

Philip Beinhaker

Laurence Potvin

Charles Simpson

Richard Dale Edmiston

Dr. Leslie Thomas Filotos

Already sworn

Ronald D. Coulas

Mr. Marsden for the City of Brampton cross-examines the panel and directs a question to Mr. Coulas.

A further question is answered by Mr. Gwilliam.

Mr. MacKinnon reads Mr. Gwilliam's qualifications into the record.

Mr. Marsden directs a question to Mr. Edmiston.

Mr. James Skells for SANA cross-examines the panel and directs questions responded to by:

Mr. Coulas, Mr. Gwilliam and Mr. Edmiston

Exhibit 35A – STOL Patronage Forecasts for the Toronto Region February 15, 1973

Exhibit 35B – Toronto Island STOLport Preliminary Master Plan September 1973

Exhibit 35C – A Plan to Introduce quiet STOL transportation action in Canada 1974 – 1977.

Exhibit 36 – Chart – STOL Patronage Forecasts Diversion from CTOL.

Mr. MacKinnon indicates he will now deal with the first question set for this Hearing i.e.

“Can the forecast growth of air traffic be met without increasing the number of people affected by noise disturbance from aircraft?”

Mr. MacKinnon indicates he will attack the presentation of the organization known as People or Planes on the evidence statements of their witnesses.

RONALD D. COULAS called, sworn and examined by Mr. MacKinnon.

Exhibit 37 (B-34) — Noise Exposure Forecasts for Toronto International Airport, Malton and New Toronto International Airport, Pickering, 1971-1985 dated February, 1974.

Exhibit 38 — Chart — Toronto-Malton 1980 NEF Noise Contours

Exhibit 39 — Chart — Toronto-Malton 1971 /72 NEF Noise Contours

Exhibit 40 — Chart — Toronto-Malton 1980 NEF Noise Contours

Exhibit 41 — Chart — Disturbance from Flight Operations 1980.

Exhibit 42 (B-33) — Noise Measurement Project-Malton — Summer 1973.

8:25      Recess for 15 minutes

9:50      Hearing resumes.

DR. LESLIE FILOTOS called, sworn and examined by Mr. MacKinnon.

Exhibit 43 — Appraisal of the Aircraft Sound Description System (ASDS) R-74-1 of January 1974.

RICHARD DALE EDMISTON called, sworn and examined by Mr. MacKinnon.

Exhibit 44 (B-36) — Community Effects of Aircraft Operations

Mr. J.T. Weir for the City of Mississauga cross-examines the panel and directs questions responded to by:

Mr. Coulas and Dr. Filotos.

At 11:00 p.m. Hearing adjourned to 6:00 p.m. tomorrow.

**Wednesday the 20th day of March 1974 at 6:00 p.m.**

Mr. Weir continues his cross-examination of the panel and directs questions to:

Dr. Filotos

Mr. Coulas

Mr. Fitton

Mr. Edmiston

Mr. P.W.J. Mingay, Q.C. for the Town of Whitchurch-Stouffville cross-examines the panel and directs questions to:

Mr. Coulas

Mr. Fitton

Mr. Simpson

Exhibit 53 — Chart — Navigation Aid

Recess — 8:30 p.m. to 8:50 p.m.

Mr. Mingay continues his cross-examination directing questions to:

Mr. Coulas

Mr. George McKee

Mr. Edmiston

Dr. Filotos

Mr. L.W. Stewart, Q.C., for The Regional Municipality of Peel cross-examines the panel and directs questions to:

Mr. Gwilliam

Mr. Coulas

Mr. Edmiston

Mr. D.J. Wright for the City of Toronto cross-examines the panel and directs questions to:

Mr. Coulas Mr. Fitton

At 11:00 p.m. the Hearing is adjourned to 6:00 p.m. tomorrow.

**Thursday the 21st day of March, 1974 at 6:00 p.m.**

Mr. MacKinnon files

Exhibit 54 — Canadian Flight Information List — Department National Defence — Ministry of Transport Noise Abatement Procedures, February 21, 1974.

Mr. MacKinnon gives curriculum vitae of MR. BEINHAKER, a witness on the panel.

Mr. Wright then continues his cross-examination of the panel and directs questions to:

Dr. Filotos  
Mr. Edmiston  
Mr. Coulas  
Mr. Potvin  
Mr. Beinhaker  
Mr. Gwilliam  
Mr. Fitton.

At 11:00 p.m. Hearing adjourned to 2:00 p.m. tomorrow.

**Friday the 22nd day of March 1974, at 2:00 p.m.**

GEORGE WESLEY LLOYD called and sworn as a member of the panel.

Mr. Dunne, Counsel for the Government of Canada, gives Mr. Lloyd's curriculum vitae.

Mr. Wright cross-examines the panel

Mr. Coulas  
Mr. Fitton  
Mr. Lloyd  
Mr. Edmiston

Mr. W.P. Butler for the Borough of Etobicoke cross-examines the panel and directs questions to,

Mr. Coulas re Exhibit 39  
Mr. Gwilliam

Recess — 4:00 p.m. to 4:10 p.m.

Mr. Monaghan, Counsel for the Commission, cross-examines the panel and addresses questions to,

Mr. Fitton  
Mr. Coulas  
Mr. Lloyd  
Mr. Gwilliam

Mr. Coulas marks Exhibit 38 with areas of Etobicoke, Mississauga, Bramalea and North York with green marker showing population concentrations.

Dr. Filotos  
Mr. Edmiston



At 5:00 p.m. the Hearing adjourned to 1:30 p.m. Monday.

**Monday the 25th day of March 1974 at 1:30 p.m.**

Mr. Monaghan continues his cross-examination of the panel and directs questions to:

Dr. Filotos

Mr. Edmiston

Mr. Coulas

Mr. Tidd

Mr. Fitton

Recess — 3:15 p.m. to 3:30 p.m.

Mr. Monaghan continues his cross-examination and directs questions to,

Mr. Coulas

Mr. Monaghan directs questions to the panel from the public directed to,

Mr. Gwilliam

Mr. Coulas

Mr. Edmiston

Dr. Filotos

Mr. Dunne for Government of Canada advises he has no re-examination.

Mr. Dunne brings his evidence on the second question for this hearing, i.e.

“2. Can the runway capacity be extended to meet the forecast growth of air traffic?”

CHARLES SIMPSON already sworn, called and examined by Mr. Dunne.

Exhibit 55 — Air Traffic Control Circular Letter 6-3-P310-73 dated October 23, 1973 re Wake Turbulence.

Exhibit 56 — Chart — Pictorial Representation of Aircraft Trailing Vortices.

WILLIAM LAW called, sworn and examined by Mr. Dunne.

Exhibit 57 (B-28) — Flight Information Manual, 1973

Exhibit 58 (B-35) — Hourly Runway System Capacities for Airport Planning, February 1973

Exhibit 59 – Chart – Wake Turbulence Behind Aircraft

Exhibit 60 – Chart – Runway Capacity *without* Wake Turbulence Separation Requirements

Exhibit 61 – Chart – Runway Capacity *with* Wake Turbulence Separation Requirements

Exhibit 62 – Chart – Scheduled Peak Hour Demand and Capacity of the Single Runway 14/32

Mr. Dunne calls a panel of witnesses for cross-examination consisting of:

Mr. Desmond John Peters	duly sworn
Mr. Lawrence Charles Sanders	duly sworn
Mr. Charles Neil Simpson	already sworn
Mr. Russell Gwilliam	already sworn
Mr. William Law	already sworn
Mr. Philip Beinhaker	already sworn
Mr. Leonard Fitton	already sworn
Mr. Donald Stone	already sworn

Mr. J.T. Weir, Q.C. for the City of Mississauga cross-examines the panel and directs questions to:

Mr. Simpson

Mr. Fitton

At 5:00 p.m. Hearing recessed to 7:00 p.m.

ANTHONY KENNETH BEAK called and sworn as a panel witness for cross-examination.

The Chairman calls on Counsel for further cross-examination of the panel:

Mr. Marsden for City of Brampton – not present

Mr. Butler for Borough of Etobicoke – not present

Mr. Stewart for The Regional Municipality of Peel – not present

Mr. Skells for SANA – not present

Mr. Boxma for The Corporation of the Town of Pickering – not present

Mr. Mingay for the Town of Whitchurch-Stouffville – not present

Mr. Lafrenière for Air Canada – not present

Mr. Bell for de Havilland Aircraft of Canada, Limited – not present

Mr. D.J. Wright, Q.C. for the City of Toronto cross-examines the panel and directs questions to:

Mr. Law

Mr. Gwilliam

Mr. Beinhaker

Mr. Sanders

Mr. Beak

Mr. Simpson

Mr. Monaghan, Counsel for the Commission, cross-examines the panel and directs questions to:

Mr. Beinhaker

Mr. Law

Mr. Beak

Mr. Lloyd

Recess — 8:30 p.m. to 8:45 p.m.

Mr. Monaghan continues his cross-examination.

Mr. Monaghan asks questions of the panel put forward by members of the public and directs them to:

Mr. Fitton

Mr. Beak

Mr. Law

Mr. Simpson

Mr. Potvin

Mr. Wright, Counsel for the City of Toronto, granted leave to ask a further question of the panel.

Mr. Dunne, Counsel for the Government of Canada, re-examines the panel and directs questions to:

Mr. Beinhaker

Mr. Dunne now deals with Question 3 relative to this Hearing i.e.

“3. Can terminal capacity be increased to meet the forecast growth of air traffic?”

and advises he will lead no evidence and files.

Exhibit 63 — Statement of Old Evidence Relevant to Question No. 1 — Noise.

Mr. Dunne now leads evidence to Question No. 4, i.e.

“4. Can ground access be provided to meet the forecast growth of air traffic?”

JOHN VANCE called sworn and examined by Mr. Dunne.

Exhibit 64 — Forecast of year 2000 Toronto Airport System Groundside Travel Demands for Scenario H December 1973

Exhibit 65 — Chart — Comparison of Average Summer Day Trips in 2000 with 1969/71 Two Way Person Trips Scenario H.

Mr. Dunne now calls a panel with respect to Question 4 for cross-examination.

The panel is composed of:

John Vance	already sworn
Philip Beinhaker	already sworn
Russell Gwilliam	already sworn
Lawrence Potvin	already sworn
Ho-Kwan Wong	duly sworn
John van Loon	duly sworn
Murray McLeod	duly sworn

Mr. J.T. Weir, Q.C., Counsel for the City of Mississauga cross-examines the panel and directs questions to:

Mr. Vance

Mr. Beinhaker

Exhibit 66 — Letter, September 27, 1973 to G.E. McDowell from Ministry of Transportation and Communications for the Province of Ontario.

The Chairman calls on Counsel for cross-examination

Recess 10:00 p.m. to 10:15 p.m.

Mr. Wright, for the City of Toronto, cross-examines the panel and directs questions to:

Mr. Potvin

Mr. Vance

Mr. Beinhaker

**Tuesday the 26th day of March 1974 at 1:30 p.m.**

Mr. Dunne files

Exhibit 67 — Letter, September 12th, 1973, G.E. McDowell to Deputy Minister Planning, Research and Development, Ministry of Transportation and Communications for Ontario.

Mr. Wright, Counsel for the City of Toronto, continues his cross-examination of the panel and directs questions to:

Mr. Vance

Mr. Potvin

Mr. Ross

Mr. Monaghan, Counsel for the Commission, cross-examines panel and directs questions to Mr. Vance.

Exhibit 68 — Map, Toronto International Airport (Malton) Scheme B2 for Estimate to Year 2000 for Financial Model only.

No re-examination by Counsel for Government of Canada.

Mr. J.T. Weir, Q.C., Counsel for the City of Mississauga, now presents his evidence and calls:

WILLIAM DAVID WAITE, sworn and examined by Mr. Weir.

Exhibit 69 — Chart — Proposed Subdivisions of the City of Mississauga.

Exhibit 70 — Table Population of the City of Mississauga affected by 1969 Provincial Noise Guide Lines and attached thereto Table showing Population and Housing Units in Noise Sensitivity Zones II and III, City of Mississauga.

The Chairman calls for cross-examination from Counsel present:

Mr. Wright for the City of Toronto cross-examines.

Mr. Dunne, Counsel for Government of Canada, cross-examines.

Mr. Monaghan, Counsel for the Commission, cross-examines.

Re-examined by Mr. Weir.

Recess — 3:45 p.m. to 4:00 p.m.

Mr. W.P. Butler, Counsel for the Borough of Etobicoke, presents his evidence and calls:

ROBERT SINCLAIR TRUMAN, sworn and examined by Mr. Butler.

Exhibit 71 — Zoning Map of the Borough of Etobicoke.

Exhibit 72 — Evidence Statement of the Borough of Etobicoke, received March 4, 1974, by the Commission.

Cross-examined by Mr. Weir for the City of Mississauga.

Cross-examined by Mr. Wright for the City of Toronto.

Cross-examined by Mr. Dunne for the Government of Canada.

Cross-examined by Mr. Monaghan, Counsel for the Commission.

At 5:00 p.m. Hearing adjourned to 1:30 p.m. tomorrow.

**Wednesday, the 27th day of March, 1974 at 1:30 p.m.**

Mr. Wright makes representation re argument with respect to Impact Studies and adjournment until the City of Toronto produces such study.

Mr. Dunne is heard *contra*

Mr. McCreath is heard for the Commission.

Commission replies that argument will be heard as scheduled and the matter of Impact Study referred to dealt with at a later date.

Mr. Marsden for the City of Brampton adduces his evidence and calls:

THOMAS HEATH, sworn and examined by Mr. Marsden.

Exhibit 73 — Map of City of Brampton at 1973.

Exhibit 74 — Map of City of Brampton at 1974

Exhibit 75 — Map of City of Brampton amended in the Bramalea area.

Exhibit 76 — Plate from Official Plan Amendment 43, City of Brampton.

Exhibit 77 — Official Plan Amendment Township of Chinguacousy (Schedule A) Map.

Exhibit 78 — Amendment Number 51 to the Official Plan of the Township of Chinguacousy.

Exhibit 79 — Map showing subdivision applications pending in Township of Chinguacousy.

Exhibit 80 — Map of Brampton showing NEF contours 1982.

Exhibit 81 — Map of Brampton showing NEF contours from Document B32, Exhibit 37.



Exhibit 82 — Map of Brampton showing 30 NEF contours and 28 NEF contours.

Exhibit 83 — Map of Brampton showing population figures and NEF contours to 1980. Figure 4 of Exhibit 37.

Cross-examined by Mr. Wright for the City of Toronto.

Cross-examined by Mr. Dunne for the Government of Canada.

No re-examination.

Recess — 3:10 p.m. to 3:25 p.m.

Mr. Monaghan advises the Commission with respect to evidence statements filed before March 4, 1974 and files:

Exhibit 84 — Evidence statement of Rev. A.W. Ness, File AIC 2

Exhibit 85 — Evidence statement of The Corporation of the Town of Oakville, File AIC 6.

Exhibit 86 — Evidence statement of Barry C. Clarke, File AIC 8

Exhibit 87 — Evidence statement of A.V. Howes, File AIC 10.

Exhibit 88 — Evidence statement of the Voice of Women, File AIC 19.

Exhibit 89 — Evidence statement of H.L. Rogers, File AIC 25.

Exhibit 90 — Evidence statement of Northern Electric Co. Limited, File AIC 28.

Exhibit 91 — Evidence statement of United Electrical Radio and Machine Workers of America. File AIC 32.

Exhibit 92 — Evidence statement of Technical Office Professional (TOP). File AIC 35.

Mr. Monaghan reads evidence statements into the record and files:

Exhibit 93 — Evidence statement of F. Devisser, File AIC 5

Exhibit 94 — Evidence statement of John H. Deacon, File AIC 13

Exhibit 95 — Evidence statement of John MacMillan, File AIC 33.

Mr. Monaghan indicates he will call persons who have indicated they wish to make submissions orally and calls:

PEOPLE OR PLANES — no response.

IAN HAMER, sworn and makes his submission.

Exhibit 96 — Evidence statement and related documents of Ian Hamer, File AIC 26.

Exhibit 97 — Copy of newspaper clipping entitled “IATA Revolts over New Quebec Airport”.

Recess — 5:00 p.m. to 7:00 p.m.

HENRY RALPH STRATFORD, sworn and makes his submission.

Exhibit 98 — Evidence statement of H. Ralph Stratford, File AIC 17.

Cross-examined by Mr. Wright for the City of Toronto.

Cross-examined by Mr. Butler for the Borough of Etobicoke.

MR. BRIAN DUNN, sworn and makes a submission on behalf of Ontario Aviation Enthusiasts Society.

Mr. Dunn examined by Mr. Monaghan, Commission Counsel.

Exhibit 99 — Evidence statement of Brian Dunn, File AIC 31.

Cross-examined by Mr. Lockett for the City of Mississauga.

Cross-examined by Mr. Wright for the City of Toronto.

Cross-examined by Mr. Dunne for the Government of Canada.

Recess — 8:45 p.m. to 9:00 p.m.

Exhibit 100 — Letter, December 18, 1973, from Regional Administrator, Canadian Air Transportation Administration to Clerk of the Town of Mississauga.

Mr. James Skells, Q.C., makes a submission on behalf of the organization called Society for Aircraft Noise Abatement.

PAUL LEWIS, called, sworn and examined by Mr. Skells.

VIRGINIA ETHERINGTON called, sworn and examined by Mr. Skells.

Exhibit 101 — Evidence statements of Paul Lewis and Virginia Etherington, File AIC 27.

Cross-examined by Mr. Wright for the City of Toronto.

Cross-examined by Mr. Dunne for the Government of Canada.

No re-examination.

Mr. Monaghan calls

WILLIAM JACKES, Humberlea Community Association, sworn and examined by Mr. Monaghan.

Exhibit 102 — Evidence statement of Humberlea Community Association, File AIC 22.

Cross-examined by Mr. Wright for the City of Toronto.

No re-examination.

Mr. Monaghan calls

JOHN BICKLEY, New Airport Now, who makes a submission to the Commission and is duly sworn.

Exhibit 103 — Evidence statement of organization called “New Airport Now”, File AIC 14.

Cross-examined by Mr. Wright for the City of Toronto.

Mr. Monaghan refers to a tape contained in New Airport Now brief recording an aircraft over a residence in Rexdale.

Mr. Monaghan calls

KAREN BERGER, sworn and examined by Mr. Monaghan for Elms Rexdale Residents Association, File AIC 20.

Exhibit 104 — Evidence statement of Karen Berger, Elms Rexdale Residents Association — File AIC 20.

GARY BRUCE McLEAN, called, sworn and examined by Mr. Monaghan for Rexdale Citizens Committee.

Exhibit 105 — Evidence statement of Rexdale Citizens Committee, File AIC 30.

BOBBY BHOOLA called, sworn and examined by Mr. Monaghan for Centennial Community Association.

Exhibit 106 — Evidence statement of Centennial Community Association, File AIC 9.

Cross-examined by Mr. Waterman.

Mr. Dunne advises the Government of Canada will bring no evidence in reply.

At 10:30 p.m. the Hearing adjourned to April 8th, 1974 at Pickering.

**Sitting at Pickering on Monday, April 8th, 1974 at 6:00 p.m.**

Present: The Honourable Mr. Justice Hugh F. Gibson — Chairman  
Murray V. Jones, Esq. and Dr. Howard E. Petch —  
Commissioners

Public Hearing with respect to the following matters;

In relation to the following three questions of fact, is there any new evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:

1. Is this site not suitable because of the number of people that will be affected by noise disturbance from aircraft?
2. Is this site not suitable because of regional economic effect?
3. Is this site not suitable because of total environmental effect?

### APPEARANCES

Ralph S. McCreath, Q.C.

Robert W. Macaulay, Q.C.

Commission Counsel

B.J. MacKinnon, Q.C.

Thomas Dunne

for the Government of Canada

D.J. Wright, Q.C.

Donald MacOdrum

R.N. Waterman

W.B. Drake

for the City of Toronto

P.W. Mingay, Q.C.

for the Town of Whitchurch-Stouffville

J.T. Robson

for the Town of Markham

J.R. Boxma

for the Town of Pickering

Mr. Macaulay of Commission Counsel makes an opening statement with respect to the progress of the Hearing and the conduct of the Hearing.

Mr. MacKinnon makes an opening statement.

Exhibit 107 — Robinette Documents nos. 1.4, 1.6, 1.20, 1.21, 1.22, 1.25,

13.1, 13.2, 13.3, 13.6, 13.7, 13.8, 13.9, 13.10, 13.11, 13.12, 13.13, 13.14, 13.15, 13.16, 13.17, 13.18, 13.19, 13.21, 13.22, 13.24, 13.25, 13.26, 13.28, 13.31, 13.32, 13.33, 13.34, 13.35, 13.36, 13.37, 13.39, 13.40, 13.41, 13.42, 13.43, 13.44, 13.46, 13.47,

16.1, 16.2, 16.3,

18.2, 18.3, 18.4, 18.5, 18.8, 18.9, 18.10,

18.11, 18.12, 18.13, 18.14, 18.15, 18.16

Exhibit 108 — Provincial Documents IV, V, X, XI, XII

Exhibit 109 — Government Documents A-4, A-10, A-12, A-15, A-17, A-18.

JOHN BICKLEY already sworn, called and examined by Mr. Macaulay.

Exhibit 110 — Evidence statement of John Bickley and Miriam Mittermaier (New Airport Now), File AIC 101.

Exhibit 111 — Map showing the location of the witnesses residences

MONTE C. DENNIS called, sworn and examined by Mr. Macaulay.

Exhibit 112 — Evidence statement of Monte C. Dennis, File AIC 103.

MRS. LOIS FOSTER called, sworn and examined by Mr. Macaulay.

Exhibit 113 — Evidence statement of Mrs. Lois Foster, File AIC 110.

DR. C.M. GODFREY, on behalf of People or Planes, called, sworn and examined by Mr. Macaulay.

Exhibit 114 — Evidence statement of Dr. C.M. Godfrey, File AIC 80.

Slides of the surrounding countryside at Pickering are shown.

K.E. FALLIS, on behalf of People or Planes, called, sworn and examined by Mr. Macaulay.

Exhibit 115 — Evidence statement of K.E. Fallis, File AIC 72.

At the request of Mr. Wright, the witness gives his *curriculum vitae*.

WILLIAM H. WINTERHALT, on behalf of People or Planes, called, sworn and examined by Mr. Macaulay.

Exhibit 116 — Evidence statement of W.H. Winterhalt, File AIC 70

Exhibit 117 — Appendix to 1973 Oshawa Official Plan.

Exhibit 118 — Map — Regional Development Concept, Toronto-Centered Region.

Exhibit 119 — Oshawa Area Planning and Development Study June 1971.

WILLIAM FREDERICK CROTHERS, on behalf of People or Planes, called, sworn and examined by Mr. Macaulay.

Exhibit 120 — Evidence statement of W.F. Crothers, File AIC 139.

Exhibit 121 — Brochure entitled “A Plan for the Future — The New Toronto International Airport, Pickering”.

Exhibit 122 — Aircraft Noise Ratings for Residential Areas by R.J. Donato, August 1972.

Exhibit 123 — Letter — March 14, 1974, Minister of Agriculture, Canada to Crothers.

V.A. THOMPSON, on behalf of People or Planes, called, sworn and examined by Mr. Macaulay.

Exhibit 124 — Evidence statement of V.A. Thompson, File AIC 81.

Exhibit 125 — Map — North Pickering Community Development Project — Existing and Potential Transportation Facilities.

Exhibit 126 — Report — An Environmental Study to Select Hydro Transmission Corridors for the Solandt Commission.

Exhibit 127 — Article appearing in Toronto Globe and Mail of Wednesday, September 19, entitled “New Federal Procedures might have ruled out Airport at Pickering”.

Exhibit 128 — Article appearing in Toronto Star, of August 21, 1973 entitled “Metro Brewing, Airport Admit Polluting Creek”.

At 11:00 p.m. Hearing adjourned to 6:00 p.m. tomorrow.

**Tuesday, the 9th day of April 1974 at 6:00 p.m.**

V.A. THOMPSON, recalled and continues his evidence.

Exhibit 129 — Proposed Claremont National Airport Ecological Significance.

C.T. MUIRHEAD, on behalf of People or Planes, called, sworn and examined by Mr. Macaulay.

Exhibit 130 — Evidence statement of C.T. Muirhead, File AIC 86

Exhibit 131 — Brochure “Microwave-The Landing System of the Future”.



LAWRENCE D. ALMACK, on behalf of People or Planes, called, sworn and examined by Mr. Macaulay.

Exhibit 132 — Evidence statement of L.D. Almack, File AIC 85

Exhibit 133 — Group of newspaper articles dealing with Farm Land.

Exhibit 134 — Book — Designating Land for Agriculture, July 1973.

Exhibit 135 — Map — Designating Proposed Airport Boundaries.

Exhibit 136 — Slides shown during Dr. Godfrey's evidence.

Exhibit 137 — Collection of newspaper clippings of Dr. Godfrey (9 folders)

Mr. Macaulay calls a panel for cross-examination consisting of:

Dr. Godfrey

Mr. Crothers

Mr. Thompson

Mr. Almack

Mr. Winterhalt

Mr. Fallis

all already sworn.

Cross-examined by Mr. Waterman for the City of Toronto.

Cross-examined by Mr. Mingay for the Town of Whitchurch-Stouffville.

Cross-examined by Mr. MacKinnon for Government of Canada.

Exhibit 138 — Swackhamer Guide to Hearing Testimony

At 11:00 p.m. Hearing adjourned to 6:00 p.m. tomorrow.

**Wednesday, the 10th day of April, 1974 at 6:00 p.m.**

W.H. WINTERHALT recalled and cross-examined by Mr. Macaulay.

ANDREW GLEN called, sworn and examined by Mr. Macaulay.

Exhibit 139 — Evidence statement of Andrew Glen, File AIC 113

MRS. THELMA ROBINSON called, sworn and examined by Mr. Macaulay.

Exhibit 140 — Evidence statement of Mrs. Thelma Robinson,  
File AIC 107

SANDRA SALVERSON called, sworn and examined by Mr. Macaulay.

Exhibit 141 — Evidence statement of Sandra Salverson, File  
AIC 91

SCOTT SALVERSON called, sworn and examined by Mr. Macaulay.

Exhibit 142 — Evidence statement of Scott Salverson, File AIC  
92.

BRUCE R. SEARLE called, sworn and examined by Mr. Macaulay.

Exhibit 143 — Evidence statement of Bruce R. Searle, File AIC  
114

MRS. B.R. SEARLE called, sworn and examined by Mr. Macaulay.

Exhibit 144 — Evidence statement of Mr. and Mrs. B.R. Searle,  
File AIC 108

Exhibit 144A — Three brochures

MRS. EVA SPIECE called, sworn and examined by Mr. Macaulay.

Exhibit 145 — Evidence statement of Mrs. Eva Spiece, File  
AIC 76

MRS. DIANNE ROBERTSON called, sworn and examined by Mr. Macaulay.

Exhibit 146 — Evidence statement of Mrs. Dianne Robertson,  
File AIC 73

MRS ISOBEL THOMPSON called, sworn and examined by Mr. Macaulay.

Exhibit 147 — Evidence statement of Mrs. Isobel Thompson,  
File AIC 78

MRS ELVA TINTI called, sworn and examined by Mr. Macaulay.

Exhibit 148 — Evidence statement of Mrs. Elva Tinti, File AIC  
49.

ANNE M. WANSTALL called, sworn and examined by Mr. Macaulay.

Exhibit 149 — Evidence statement of Anne M. Wanstall, File AIC 141

Cross-examined by Mr. MacOdrum for the City of Toronto.

D.M. WARNE called, sworn and examined by Mr. Macaulay.

Exhibit 150 — Evidence statement of D.M. Warne, File AIC 102.

Cross-examined by Mr. MacOdrum.

BRIAN DAVID PAYNE called, sworn and examined by Mr. Macaulay.

Exhibit 151 — Evidence statement of Brian David Payne, File AIC 104

ARLEEN L. ADAMS called, sworn and examined by Mr. Macaulay.

Exhibit 152 — Evidence statement of Arleen L. Adams, File AIC 140.

MRS. BRENDA DAVIES called, sworn and examined by Mr. Macaulay.

Exhibit 153 — Evidence statement of Brenda Davies, File AIC 197

Recess — 8:40 p.m. to 9:05 p.m.

Mrs. Davies continues with her evidence statement.

W.B. HARTSHORNE called, sworn and examined by Mr. Macaulay.

Exhibit 154 — Evidence statement of W.B. Hartshorne, File AIC 96

Exhibit 154A — Page 6 of Etobicoke Advertiser Guardian of Wednesday, March 27, 1974, and 5 additional clippings.

VERN MORROW called, sworn and examined by Mr. Macaulay.

Exhibit 155 — Evidence statement of Vern Morrow, Files AIC 71 and 45

MARTHA A. LATTA called, sworn and examined by Mr. Macaulay.

Exhibit 156 — Evidence statement of Martha A. Latta and H.B. Schroeder, File AIC 100.

Exhibit 156A — Newspaper article “Down with Growth Ethic” appearing in The News Advertiser of March 6, 1974.  
Map — North Pickering Community Development Project showing archeological sites in green

Cross-examined by Mr. MacOdrum for the City of Toronto.

Cross-examined by Mr. MacKinnon for the Government of Canada.

Mr. Macaulay, Commission Counsel files the evidence statements of persons who have indicated they did not wish to appear, or who were not present when called

Exhibit 157 — Evidence statement of Mr. and Mrs. R. Hanson, File AIC 12

Exhibit 158 — Evidence statement of Barney Danson, M.P., File AIC 23

Exhibit 159 — Evidence statement of Teddy W. Culp, File AIC 34

Exhibit 160 — Evidence statement of E.M. Stapleford, File AIC 36

Exhibit 161 — Evidence statement of Michael A. Fair, File AIC 38

Exhibit 162 — Evidence statement of Mr. and Mrs. G.H. Lowndess, File AIC 39

Exhibit 163 — Evidence statement of Terence M. Moore, File AIC 42

Exhibit 164 — Evidence statement of Donald Beach — File AIC 48

Exhibit 165 — Evidence statement of Ed. Moran Sr., File AIC 50

Exhibit 166 — Evidence statement of W. Mitchell, File AIC 51

Exhibit 167 — Evidence statement of Mrs. J. Mitchell, File AIC 52

Exhibit 168 — Evidence statement of Mrs. Jean Outhouse, File AIC 53

Exhibit 169 — Evidence statement of J. Peter Salter, File AIC 54

Exhibit 170 — Evidence statement of Max E. Greer, File AIC 55

Exhibit 171 — Evidence statement of John Cote, File AIC 56

Exhibit 172 — Evidence statement of Kenneth B. Spratley, Files AIC 40 and AIC 47.

Exhibit 172A — Chart — Part of submission of K.B. Spratley

Exhibit 173 — Evidence statement of R.W. Lee, File AIC 57

Exhibit 174 — Evidence statement of Mrs. Jean Lee, File AIC 58

Exhibit 175 — Evidence statement of Shirley Brangers, File AIC 59

Exhibit 176 — Evidence statement of E. Brangers, File AIC 60

Exhibit 177 — Evidence statement of Mrs. F. Weiser, File AIC 61

Exhibit 178 — Evidence statement of Faye E. Greer, File AIC 62

Exhibit 179 — Evidence statement of Miss Y. Mitchell, File AIC 64

Exhibit 180 — Evidence statement of E. Weiser, File AIC 65

Exhibit 181 — Evidence statement of Eva Austin, File AIC 66

Exhibit 182 — Evidence statement of Mildred Sherwood, File AIC 67

Exhibit 183 — Evidence statement of Miss A.D. Dawson, File AIC 68

Exhibit 184 — Evidence statement of Don Kelly, File AIC 69

Exhibit 185 — Evidence statement of A.J. Isbister, File AIC 74

Exhibit 186 — Evidence statement of Mr. and Mrs. A.E. Taylor, File AIC 77

Exhibit 187 — Evidence statement of C.E. Pegg, File AIC 82

Exhibit 188 — Evidence statement of Fred Gostick, File AIC 83

Exhibit 189 — Evidence statement of Sandra Budden, File AIC 84

Exhibit 190 — Evidence statement of Bennett Bleasdale, File AIC 87

Exhibit 191 — Evidence statement of Robt. G. Almack, File AIC 88

Exhibit 192 — Evidence statement of Green River Baptist Church File AIC 93.

Exhibit 193 — Evidence statement of Whitchurch-Stouffville Ratepayers Association, File AIC 95

- Exhibit 194 — Evidence statement of H.W. Hartshorne, File AIC 97
- Exhibit 195 — Evidence statement of Wm. R. Fleming, File AIC 98
- Exhibit 196 — Evidence statement of Doerchen Mohr, File AIC 99
- Exhibit 197 — Evidence statement of Green River Residents Association, File AIC 105
- Exhibit 198 — Evidence statement of 47 St. Olav's Rd., File AIC 106
- Exhibit 199 — Evidence statement of Gary Robert Rogers, File AIC 109
- Exhibit 200 — Evidence statement of Frances Moore, File AIC 111
- Exhibit 201 — Evidence statement of Greenwood Area Rate-payers Association, File AIC 115
- Exhibit 202 — Evidence statement of Albert C. Frey, File AIC 116
- Exhibit 203 — Evidence statement of Mr. and Mrs. E.H. Tait, File AIC 117
- Exhibit 204 — Evidence statement of John Livingstone, File AIC 112
- Exhibit 205 — Evidence statement of Hattie Gostick, File AIC 118
- Exhibit 206 — Evidence statement of Alfred and Florence Mitchell File AIC 119
- Exhibit 207 — Evidence statement of L.E. Parkey, File AIC 120
- Exhibit 208 — Evidence statement of Lois McLaurin, File AIC 121
- Exhibit 209 — Evidence statement of Mrs. R.A. Best, File AIC 122
- Exhibit 210 — Evidence statement of Betty Deacon, File AIC 123
- Exhibit 211 — Evidence statement of A.J. Masters, File AIC 124
- Exhibit 212 — Evidence statement of Reginald and Lorna Braid, File AIC 125



- Exhibit 213 — Evidence statement of Milton L. Pegg, File AIC 126
- Exhibit 214 — Evidence statement of Shirley Edwards, File AIC 127
- Exhibit 215 — Evidence statement of Mrs. A. Scott, File AIC 128
- Exhibit 216 — Evidence statement of Mrs. M.E. Edwards, File AIC 129
- Exhibit 217 — Evidence statement of Mrs. Mary E. Whitaker, File AIC 130
- Exhibit 218 — Evidence statement of Mrs. Bertha Scown, File AIC 131
- Exhibit 219 — Evidence statement of D. McCandless, File AIC 132
- Exhibit 220 — Evidence statement of Harold Greaves, File AIC 133
- Exhibit 221 — Evidence statement of Donald H. McClennan, File AIC 134
- Exhibit 222 — Evidence statement of Patricia (Robins) McClennan File AIC 135
- Exhibit 223 — Evidence statement of Catherine McClennan, File AIC 136
- Exhibit 224 — Evidence statement of Elizabeth A. McCowan, File AIC 137
- Exhibit 225 — Evidence statement of Stanley Outhouse, File AIC 138
- Exhibit 226 — Evidence statement of Arthur W. Ball, File AIC 142
- Exhibit 227 — Evidence statement of Eileen Ball, File AIC 143
- Exhibit 228 — Evidence statement of Margaret Andrews, File AIC 144
- Exhibit 229 — Evidence statement of Brian Andrews, File AIC 145
- Exhibit 230 — Evidence statement of Mrs. Barbara Andrews, File AIC 146
- Exhibit 231 — Evidence statement of Mrs. E. Menzie, File AIC 147
- Exhibit 232 — Evidence statement of Mrs. B. Byrne, File AIC 148

- Exhibit 233 — Evidence statement of Mr. & Mrs. J. Bolton, File AIC 149
- Exhibit 234 — Evidence statement of George Greer, File AIC 150
- Exhibit 235 — Evidence statement of Christine Brown, File AIC 151
- Exhibit 236 — Evidence statement of Fiona Gourlay, File AIC 152
- Exhibit 237 — Evidence statement of Sonia Minassian, File AIC 153
- Exhibit 238 — Evidence statement of Rotha Bryant, File AIC 154
- Exhibit 239 — Evidence statement of Roy Bryant, File AIC 155
- Exhibit 240 — Evidence statement of Mrs. Sylvia Carrod, File AIC 156
- Exhibit 241 — Evidence statement of Stephen Carrod, File AIC 157
- Exhibit 242 — Evidence statement of Robt. E. Rottenburg, File AIC 158
- Exhibit 243 — Evidence statement of Wm. Bradley, File AIC 159
- Exhibit 244 — Evidence statement of Vernon M. Collins, File AIC 160
- Exhibit 245 — Evidence statement of Mrs. I. Cartwright, File AIC 161
- Exhibit 246 — Evidence statement of Mrs. L.T. Barclay, File AIC 162
- Exhibit 247 — Evidence statement of Mrs. W.T.L. Harper, File AIC 163
- Exhibit 248 — Evidence statement of W.T.L. Harper, File AIC 164
- Exhibit 249 — Evidence statement of Mrs. V. Heard, File AIC 165
- Exhibit 250 — Evidence statement of D. & P. Hutchinson, File AIC 166
- Exhibit 251 — Evidence statement of Wm. Turko, File AIC 167

- Exhibit 252 — Evidence statement of Mr. & Mrs. J. Stader, File AIC 168
- Exhibit 253 — Evidence statement of Hildred Spearman, File AIC 169
- Exhibit 254 — Evidence statement of Christina Pilkington, File AIC 170
- Exhibit 255 — Evidence statement of Joyce Hay, File AIC 171
- Exhibit 256 — Evidence statement of Sahadeo Rhamdeo, File AIC 172
- Exhibit 257 — Evidence statement of H. Deonaraine, File AIC 173
- Exhibit 258 — Evidence statement of H. Pardham, File AIC 174
- Exhibit 259 — Evidence statement of Percival Holder, File AIC 175
- Exhibit 260 — Evidence statement of Leonard White, File AIC 176
- Exhibit 261 — Evidence statement of William Mendezi, File AIC 177
- Exhibit 262 — Evidence statement of J. Higgins, File AIC 178
- Exhibit 263 — Evidence statement of Mrs. Greene, File AIC 179
- Exhibit 264 — Evidence statement of I. Bode, File AIC 180
- Exhibit 265 — Evidence statement of M. Goebel, File AIC 181
- Exhibit 266 — Evidence statement of Miss J. Bolton, File AIC 182
- Exhibit 267 — Evidence statement of Miss K. McIntosh, File AIC 183
- Exhibit 268 — Evidence statement of Mrs. S. Hiller, File AIC 184
- Exhibit 269 — Evidence statement of J.P Hasenecker, File AIC 185
- Exhibit 270 — Evidence statement of W.A. Avery, File AIC 186
- Exhibit 271 — Evidence statement of S. Severbyevers, File AIC 187
- Exhibit 272 — Evidence statement of G.F.L. Long, File AIC 193

Exhibit 273 — Evidence statement of Lloyd Robinson, File AIC 194

Exhibit 274 — Evidence statement of Howard F. Billingham, File AIC 195

Exhibit 275 — Evidence statement of Harold D. Morlock, File AIC 196

Mr. Macaulay, Commission Counsel, advises that he has called three times all of those who said they wanted to be heard and has put into the record all those that have indicated they wanted to file.

The Chairman rules that because of the work load the sessions will be held in the afternoons and evenings of next week.

At 11:00 p.m. the Hearing adjourned to 2:00 p.m. tomorrow at Brougham.

**Thursday, the 11th day of April, 1974 at 2:00 p.m.**

Mr. Macaulay asks agreement of Counsel for the hearing of Mr. R.D. Willis for the Township of Pickering. So agreed.

REGINALD D. WILLIS, called, sworn and examined by Mr. Boxma, Counsel for Township of Pickering.

Exhibit 276 — Submission and evidence statements of the Township of Pickering, File AIC 189 & 189A

Cross-examined by Mr. Robson, Counsel for the Town of Markham

Cross-examined by Mr. Waterman, Counsel for the City of Toronto.

Cross-examined by Mr. Mingay, Counsel for the Town of Whitchurch-Stouffville.

Exhibit 277 — Report — Central York Pickering Areas Water and Sewage Systems, February 1974.

Cross-examined by Mr. MacKinnon, Counsel for the Government of Canada.

Cross-examined by Mr. Macaulay, Commission Counsel.

Re-examined by Mr. Boxma.

Mr. MacKinnon, Counsel for Government of Canada, opens his reply evidence with respect to Question No. 1 — Noise.

Recess — 3:30 p.m. to 3:40 p.m.

CHARLES SIMPSON already sworn, called and examined by Mr. MacKinnon.

Exhibit 278 — Chart — Representative Airway Structure, Toronto Area

Exhibit 279 — Chart — Proposed Low Altitude Airway Re-alignment and Control Areas

Exhibit 280 — Chart — Terminal Control Area, Positive Control Zone-Toronto International Airport.

Exhibit 281 — Chart — IFR Traffic Control Flow

Exhibit 281 — Chart — Representative Airway Structure and Aircraft Routing

L. POTVIN already sworn, called and examined by Mr. MacKinnon.

Exhibit 283 (B-45) — Document B-45 of Government Case Evaluation of Runway Capacity

Exhibit 284 — Large Photo — Aerial Mosaic of proposed Pickering Airport Site

Exhibit 285 — Chart — Representative Four Runway Airport

Exhibit 286 — Chart — NTIA Runway Development Zone

Exhibit 287 — Chart — Runway Capacity Selection Criteria

Exhibit 288 — Chart — Definition of Ultimate Runway Systems

Exhibit 289 — Chart — Planning Factors

Exhibit 290 — Chart — Proposed Phasing of Concepts

Exhibit 291 — Chart — Initial Phase

Exhibit 292 — Chart — Option I

Exhibit 293 — Chart — Option II

Exhibit 294 — Chart — Archeological Sites

Exhibit 295 — Chart — NEF Contours NTIA Pickering 1985, Scenario G

Exhibit 296 — Chart — NEF Contours NTIA Pickering Forecast 1990 — All Traffic

Exhibit 297 — Chart — Noise Exposure Forecasts Envelope

Exhibit 298 — Chart — Matrix of Runway Concepts

At 5:00 p.m. Hearing adjourned to 2:30 p.m. Tuesday, April 16.

**Tuesday, the 16th day of April, 1974 at 2:30 p.m.**

MR. POTVIN recalled and continues his evidence.

Exhibit 299 — Chart — Alternate Ultimate Runway Concept

Exhibit 300 — Chart — Preliminary Evaluation of Concepts

Exhibit 301 — Chart — Preliminary Selection Results

Exhibit 302 — Chart — Runway Concept I-1

Exhibit 303 — Chart — Runway Concept I-5

Exhibit 304 — Chart — Runway Concept I-8

Exhibit 305 — Chart — Runway Concept J-1

Exhibit 306 — Chart — Runway Concept J-2

Exhibit 307 — Chart — Runway Concept J-3

CHARLES N. SIMPSON already sworn recalled and examined by Mr. MacKinnon.

Exhibit 308 — Chart — NTIA and the New Zoo

RONALD I. COULAS, recalled and examined by Mr. Dunne.

Exhibit 309 (B-54) — Government Document B-54, The Effect of Curved Departures on Noise Exposure Forecasts NTIA Pickering.

Exhibit 310 — Chart — NEF Contours NTIA Pickering 1980 Scenario G

DR. ALFRED LIGHTSTONE called, sworn and examined by Mr. Dunne.

Exhibit 311 (B-42) — Government Document B-42A Background Noise Study in the Vicinity of the proposed New Toronto Airport

Exhibit 312 — Chart — Study Area and Monitoring Sites

Exhibit 313 — Small Chart — Weighted Sound Pressure Levels, City of Toronto Local, Arterial, Collector Night Time

Exhibit 314 — Chart — 24 Hour Equivalent Sound Energy Impact

RONALD I. COULAS recalled and examined by Mr. Dunne in reply to submission of K.B. Spratley.

CHARLES SIMPSON recalled and examined by Mr. Dunne in reply to submission of K.B. Spratley.

Recess — 4:15 p.m. to 4:30 p.m.

Mr. MacKinnon, Counsel for the Government of Canada, calls a panel for cross-examination on the first question, i.e. Noise.



Panel:

L. Fitton	R. Wentzell	P. Tidd
R. Lothian	D. Stone	L. Filotas
L. Potvin	W. Law	J.M. Choukroun
C. Simpson	G. Sladik	G. Hutchison
M. Ringham	R. Gwilliam	D. Edmiston
R. Coulas	P. Beinhaker	A.D. Lightstone

Cross-examined by Mr. MacOdrum for the City of Toronto.

At the instance of Mr. Macaulay, Commission Counsel, Mr. MacOdrum undertakes to file a letter containing the terms of reference as instructed by the City of Toronto.

Further cross-examined by Mr. Waterman for the City of Toronto.

Recess — 5:30 p.m. to 7:30 p.m.

Mr. Waterman continues his cross-examination of the panel.

Exhibit 315 — Document entitled Outlines dated June 26, 1972, with sketches of Malton and Pickering attached.

Recess — 9:00 p.m. to 9:15 p.m.

Mr. Waterman continues his cross-examination of the panel.

At 10:30 p.m. the Hearing is adjourned to 2:30 p.m. tomorrow.

**Wednesday, the 17th day of April, 1974, at 2:30 p.m.**

Mr. Macaulay sets out the Schedule of Hearings for the balance of the week and advises he will release a statement to the press re Spratley.

Panel cross-examined by Mr. Mingay, Counsel for the Town of Whitchurch-Stouffville.

Panel cross-examined by Mr. Robson, Counsel for the Town of Markham.

Panel cross-examined by Mr. Macaulay, Commission Counsel.

No re-examination.

Recess 4:00 p.m. to 4:15 p.m.

Government leads evidence to Question 2 — Regional Economic Effect.

RUSSELL GWILLIAM, already sworn, recalled and examined by Mr. MacKinnon.

Exhibit 316 (B 16) — The Impact of NTIA Pickering on the Toronto Region, December 1973

Exhibit 317 (B 43) — The Impact of NTIA Pickering on the Toronto Region, Progress Report and Update, March 1974.

Exhibit 318 (B 44) — Understanding the Urban Process: The Empiric Growth Allocation Model-May

Exhibit 319 (C 15) — Employee Shift Analysis and Employee Movement Forecasts, September 1973

Exhibit 320 (B 52) — Employee Shift Analysis and Employee Movement Forecasts, March 1973

Exhibit 321 — Chart — Airport Economic Impact

Exhibit 322 — Chart — Toronto Centered Region — Regional Development Concept

Exhibit 323 — Chart — Toronto Centered Region — Regional Development Concept Zone 1

Exhibit 324 — Chart — Toronto Centered Region — Zone 1 Eastern Region

Exhibit 325 — Chart — Concept B-Pickering Airport — 2 Miles South

Exhibit 326 — North Pickering Community Development Project Newsletter Vol. 2 No. 1.

Exhibit 327 — Development Planning in Ontario — The Parkway Belt: West, June 1973

Exhibit 328 — Chart — Malton Area — Metropolitan Toronto

Exhibit 329 — Chart — Internal Affiliation of Companies and Air Business Trips Generated Metro Toronto and Malton Area.

Exhibit 330 — Chart — Relationships between external Affiliation of Industrial Companies and Air Business Travel

Exhibit 331 — Chart — Employment Ratios used in Employee Forecasts

Exhibit 332 — Chart — Employment in the Toronto Area Airport System

NEIL ALLAN IRWIN called, sworn and examined by Mr. MacKinnon.

Exhibit 333 — Chart — Basic Data Forecasting Process

Exhibit 334 — Chart — Structure of “Empiric” Model

Exhibit 336 — Chart — Dependent Variables and Independent Variables

Exhibit 337 — Chart — Variables Examined in Model Calibrations

Exhibit 339 — Chart — The Final Calibrated Model

Exhibit 340 — Chart — Alternative Uses

Exhibit 341 — Chart — Empiric Model Applications

Recess — 5:30 p.m. to 7:30 p.m.

RUSSELL GWILLIAM already sworn, recalled and examined by Mr. MacKinnon.

Exhibit 342 — Chart — Forecasting Procedure

Exhibit 343 — Chart — Empiric Growth Allocation Model Scenario D Forecasts of Population

Exhibit 344 — Chart — Empiric Growth Allocation Model Scenario D Forecasts of Manufacturing and Wholesale Employment.

Exhibit 345 — Chart — Empiric Growth Allocation Model Scenario D Forecasts of Retail Service and Other Employment

Exhibit 346 — Chart — Empiric Growth Allocation Model All Scenarios 1986, Forecasts of Population

Exhibit 347 — Chart — Empiric Growth Allocation Model All Scenarios 1986, Forecasts of Manufacturing and Wholesale Employment

Exhibit 348 — Chart — Empiric Growth Allocation Model ALL Scenarios, 1986, Forecasts of Retail, Service and Other Employment

Exhibit 349 — Chart — Empiric Growth Allocation Model — Large Sub-regional Areas

Exhibit 350 — Chart — Shares of the Regional Population 1981 and 1986

Exhibit 351 — Chart — Shares of the Regional Employment 1981 and 1986

Exhibit 352 — Chart — Jobs per Thousand Population 1971 to 1986

Mr. MacKinnon calls a panel on Question No. 2 for cross-examination.

Mr. Beinhaker already sworn

Mr. Gwilliam already sworn

Mr. J.M. Choukroun already sworn

Mr. Irwin already sworn

Mrs. M. Wilson                      duly sworn

Cross-examined by Mr. Robson for Town of Markham.

Cross-examined by Mr. Waterman for the City of Toronto.

Recess — 9:10 p.m. to 9:25 p.m.

Mr. Waterman continues his cross-examination of the panel.

Cross-examined by Mr. Macaulay, Counsel for the Commission.

No re-examination.

The Government leads evidence to Part 2 of Question No. 2.

ROBERT VAN DER LINDE called, sworn and examined by Mr. Dunne.

Exhibit 353 (B 11) – New Toronto International Airport –  
Present Land Use, 1972/73 Crop Surveys, September 1973.

Exhibit 354 (B 48) – Agriculture and the New Toronto International Airport: An Introductory Analysis, March 1974

Exhibit 355 – Area Report for Pickering by Ontario Ministry of Agriculture dated 03-05-74

Exhibit 356 – Airport Site Value of Agricultural Production  
from Individual Returns for 1966 and 1971

At 11:00 p.m. the Hearing is adjourned to 2:00 p.m. tomorrow.

**Thursday the 18th day of April 1974 at 2:00 p.m.**

ROBERT VAN DER LINDE recalled and examination continued by Mr. Dunne.

Exhibit 357 — Chart — Location of Study Areas

Exhibit 358 — Map of Property Divisions in the Airport Property

Exhibit 359 — Chart — General Farm Characteristics and Trends

Exhibit 360 — Chart — Farm Economics Characteristics and Trends

Exhibit 361 — Chart — Airport Site Productive Potential

Exhibit 362 — Letter — L.G. Potvin from Schiphol Airport Authority dated March 20, 1974 with Synopsis of the Farming of the Landed Property of Schiphol Airport Authority.

Mr. Dunne calls a panel of experts for cross-examination of Part 2 of Question 2.

The panel:

R. Van der Linde	already sworn
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M. Ringham	already sworn
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R. Wintzell	already sworn
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L. Potvin	already sworn
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Dr. E. McIntosh	sworn
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E. Gallacher	sworn
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P. Basi	sworn
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Cross-examined by Mr. Mingay for the Town of Whitchurch-Stouffville.

Cross-examined by Mr. Robson for the Town of Markham.

Cross-examined by Mr. Waterman for the City of Toronto.

Exhibit 363 — Copy of submission to Federal Treasury Board re: New Toronto International Airport — Agrology Study

Approval in Principle and Authority to Enter into Contract  
with Agrology Consultants

Cross-examined by Mr. Macaulay, Counsel for the  
Commission.

Recess — 5:30 p.m. to 7:30 p.m.

Mr. MacKinnon for Government of Canada leads evidence to  
Question 3: Total Environmental Effect.

FRANCES WALDEN called, sworn and examined by Mr.  
MacKinnon.

Exhibit 364 (B 47) — Preliminary Edition — An Ecological  
Study of the North Pickering Community Development Area  
and Toronto II Airport Site March 1974.

Exhibit 364A — Groups of Maps relevant to preceding exhibit

R. WENTZELL, already sworn, recalled and examined by Mr.  
MacKinnon.

Exhibit 365 — Executive Report on Bird Population and  
Movements Associated with the Proposed New Toronto Inter-  
national Airport, March 1974

DR. JACK BARR called, sworn and examined by Mr. MacKinnon.

Exhibit 366 — Chart — Map of Study Area Ornithological  
Study

Exhibit 367 — Letter — April 8, 1974 to D.J. Wright, Q.C. from  
Deputy City Clerk of City of Toronto

Mr. MacKinnon calls a panel of witnesses for cross-  
examination.

The panel:

J. Barr	already sworn
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F. Walden	already sworn
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H. Finley	already sworn
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S. Reid	already sworn
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P. Beinhaker	already sworn
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L. Potvin already sworn

R. Coulas already sworn

R. Wentzell already sworn

Cross-examined by Mr. Robson for the Town of Markham.

Cross-examined by Mr. Mingay for the Town of Whitchurch-Stouffville.

Cross-examined by Mr. Waterman for the City of Toronto

Exhibit 368 — Chart — Conservation Areas around NTIA Pickering.

Recess — 9:25 p.m. to 9:40 p.m.

Cross-examined by Mr. Macaulay, Counsel for the Commission. No re-examination.

Mr. MacKinnon puts in all remaining reports relevant to the question and files

Exhibit 369 (B 22) — Environmental Terrain Study, Toronto Area Airports Project

Exhibit 370 (B 23) — Subsoil Survey and Settlement Studies on New Toronto Airport Site Pickering, Ontario.

Exhibit 371 (B 24) — Progress Report on Snow Control Studies for NTIA

Exhibit 372 (B 13) — Report on Field Trip to Hanlon Creek Sedimentation Ponds located at Hanlon Expressway over Hanlon Creek near Guelph, Ontario.

Exhibit 374 (B 14) — Preliminary Report on Aggregates and Materials, November 1973

Exhibit 375 (B 18) — County Road 5 Relocation Status Report

Exhibit 376 (B 18) — Utilities for the Proposed NTIA March 1974

Exhibit 377 (B 21) Preliminary Drainage Study

Exhibit 378 (B 15) — Surface Water Monitoring Program, October 1973

Exhibit 379 (B 12) — Waste Management Report, February 1973

Exhibit 380A (B 53) — Preliminary Plan Showing Restrictions EHV Power Lines and Stations NTIA, March 1973

Exhibit 380B (B 17) — Maps relevant to preceding exhibit  
Exhibit 381 (B 51) — Potential Sites for a Radar Facility at the  
NTIA March 1974

Exhibit 382 (B 50) — Potential Sites for a VHF Omni Range  
Navigational Aid Facility at the NTIA March 1974

Mr. MacKinnon calls a panel for cross-examination on the  
reports.

The panel:

J. Gartner	sworn
Dr. K.R. Peaker	sworn
W. Rowan	sworn
J. DeChiara	sworn
I. Lorant	sworn
I. Ginsburg	sworn
A. Cross	sworn
R. Wentzell	recalled
S. Reid	recalled
Mr. Ringham	recalled

Cross-examined by Mr. Waterman. Mr. MacKinnon moves to  
have charts filed as exhibits by the panel. So ordered.

Exhibit 383 — Chart — Surface soil types and bore hole  
locations

Exhibit 384 — Chart — Typical cross section of soil throughout  
airport site.

Exhibit 385 — Chart — Slopes

Exhibit 386 — Chart — Environmental Geology

Exhibit 387 — Chart — Approximate locations of existing land  
lines.

Exhibit 388 — Chart — Utilities

Exhibit 389 — Chart — Flight lines for Rouge Creek and  
Duffin Creek, 1974

Exhibit 390 — Chart — County Road No. 5 re-location

Exhibit 391 — Chart — Proposed stream gauge locations

Exhibit 392 — Chart — Drainage areas and gauging station  
locations

Exhibit 393 — Chart — Potential Radar Sites

Exhibit 394 — Chart — Potential VOR Sites

Exhibit 395 — Chart — Combining of restrictions on EHV facilities

Government presentation on Question 2 completed.

At 11:00 p.m. the Hearings are adjourned to 10:00 a.m. tomorrow.

**Friday, the 19th day of April 1974 at 10:00 a.m.**

Mr. MacKinnon opens and outlines amendments to Document C-1. Mr. Potvin marks runway centre point on Exhibit 286.

Mr. Mingay makes his opening statement on behalf of the Town of Whitchurch-Stouffville and files

Exhibit 396 (A,B,C) — Evidence statement of Kunio Hidako, File AIC 192a with two maps 396A, 396B, and C.

Exhibit 397 — Evidence statement of Andrew S. Harris, File AIC 192b

Exhibit 398 — Evidence statement of Gordon Ratcliff, File AIC 192c

ANDREW S. HARRIS called, sworn and examined by Mr. Mingay.

Exhibit 399 — Chart — Outdoor Day-Night Noise Level at Various Locations

Exhibit 400 — Chart — Outdoor Day-Night Noise Level at Various Locations compared with NEF

Exhibit 401 — Chart — Intrusions vs Complaints

Exhibit 402 — Chart — Contours versus Levels

Exhibit 403 — Chart — Duration

Exhibit 404 — Chart — NEF Determination

Exhibit 405 — Chart — Contour Splitting

Exhibit 406 — Chart — Contour Fairing

Recess — 11:45 a.m. to 12:00 (noon)

KUNIO HIDAKA called, sworn and examined by Mr. Mingay.

Recess — 12:30 p.m. to 2:30 p.m.

Exhibit 407 — Two Orders made by Minister of Housing for Ontario under the Planning Act re: Township of Pickering, dated January 10, 1974 and February 18, 1974 respectively

GORDON RATCLIFF called, sworn and examined by Mr. Mingay.

Exhibit 408 — A Preliminary Statement of Goals and Objectives of The Regional Municipality of York

Panel comprised of Mr. Harris, Mr. Hidaka and Mr. Ratcliff called for cross-examination. Cross-examined by Mr. MacKinnon for the Government of Canada.

MR. HARRIS cross-examined by Mr. Dunne for the Government of Canada.

Exhibit 409 — Zoning Map of the Town of Whitchurch-Stouffville.

Recess — 4:15 p.m. to 4:30 p.m.

Mr. Dunne continues his cross-examination of Mr. Harris.

Cross-examined by Mr. Lockett for the City of Mississauga.

Cross-examined by Mr. Robson for the Town of Markham.

Cross-examined by Mr. Waterman for the City of Toronto.

Cross-examined by Mr. Macaulay, Commission Counsel. No re-examination of Mr. Harris.

MR. HIDAKA cross-examined by Mr. Waterman for the City of Toronto.

Mr. Hidaka cross-examined by Mr. Robson for the Town of Markham.

Mr. Macaulay files

Exhibit 410 — Civil Aircraft Fleet Noise Requirement.

Recess — 5:45 p.m. to 7:30 p.m.

Evidence of Town of Markham

Mr. Robson opens and calls

DONALD M. PATERSON, sworn and examined by Mr. Robson.

Exhibit 411 — Submission of the Town of Markham.

Exhibit 411A — Chart — Relationship between Aircraft Movements and Areas Under Noise Contours TIA Malton 1971 — 1990

Exhibit 411B — Chart — NTIA Projection of Relationship between Aircraft Movements and Areas under Noise Contours.

Exhibit 411C — Chart — Mirabel, Projection of relationship

between Aircraft Movements and Areas under Noise Contours.

Exhibit 411D — Chart — NTIA Alternative Forecasts of the Relationship between Air Traffic and Noise Contours

Exhibit 411E — Letter, March 26, 1974, to Ralph S. McCreath from Thomas Dunne

Exhibit 411F — Chart — NTIA “Median” 1982 and 2000 Scenario G Noise Contours

Exhibit 411G — Chart — NTIA “Median” 1980 and 2000 All Traffic Noise Contours

Exhibit 411H — Chart — NTIA “Noisy” 1986 All Traffic Noise Contours

Exhibit 411I — Chart — NTIA “Noisy” 2000 Scenario G Noise Contours

Exhibit 411J — Chart — NTIA “Median” 1980 and “Quiet” 1990 All Traffic Contours

Exhibit 411K — Chart — NTIA and TIA “Median” 1980 and “Quiet” 1990 All Traffic Contours

JOHN WINTER called and sworn and joins MR. PATERSON to form a panel for cross-examination.

Cross-examined by Mr. MacKinnon for the Government of Canada. No re-examination.

Mr. Waterman for the City of Toronto files

Exhibit 412 — Farm Classification Advisory Committee Report

Recess — 9:05 p.m. to 9:20 p.m.

Reply

Mr. MacKinnon opens and calls a panel consisting of:

Mr. Beinhaker

Mr. Potvin

Mr. Edmiston

Mr. Coulas

Dr. Filotas all already sworn.

Re-examined by Mr. MacKinnon.

MR. EDMISTON re-examined by Mr. Dunne.

Panel cross-examined by Mr. Mingay for the Town of Whitchurch-Stouffville.

Panel cross-examined by Mr. Robson for the Town of Markham.

Panel cross-examined by Mr. Waterman for the City of Toronto.

Evidence on Questions closed.

Mr. Macaulay advises the Commission that Mr. Norman Cafik, M.P. wishes to put three questions to the Chief Commissioner and has been advised that the Practice and Procedure does not permit such a proposal but has been advised to put the questions in the form of a letter to the Commission.

Mr. Macaulay states that Mr. Cafik has pointed out that the Commission has the right to suspend or alter the rules and has been advised that this would be unfair, the Commission having denied his proposal to others.

Mr. Macaulay recommends that the request be rejected. The Chairman concurs.

At 10:20 p.m. the Hearing is adjourned to 2:00 p.m. on Monday, April 22nd at Toronto.

**Sitting at Toronto this 22nd day of April, 1974 at 2:00 p.m.**

Present: The Honourable Mr. Justice Hugh F. Gibson — Chairman  
Murray V. Jones, Esq. and Dr. Howard E. Petch —  
Commissioners

Hearing 3 of Phase 1 on the following question:

3. The Government of Canada has made forecasts as to the traffic volume of passenger, air cargo and aircraft movements to the year 2000. The questions for consideration are:
  - A. 1) Is there any evidence as to what is the expected maximum passenger traffic volume in the domestic, trans-border and international air traffic markets for the year 1980?
  - 2) For the year 1990?
  - 3) For the year 2000?
- B. In relation to the following questions, is there any new



evidence to prove that the site near Pickering, Ontario, is not suitable for the new International Airport for the central Ontario market, that is to say:

- 1) Is this site not suitable because of passenger inconvenience?
- 2) Is this site not suitable because of the on-site and off-site facilities that will be required to be built, such as roads, railways, guideways, helicopter facilities, etc.?

### **APPEARANCES**

Ralph S. McCreath, Q.C.

Robert W. Macaulay, Q.C.

B.A. Monaghan

J.D. Richard

Commission Counsel

B.J. MacKinnon, Q.C.

Thomas Dunne

R. Sharpe

for the Government of Canada

R.N. Waterman

for the City of Toronto

B.C. McDonald

G.E. Kaiser

J.R. Boxma

for the Town of Pickering

J.D. Bell, Q.C.

R.E. Waller

for the de Havilland Aircraft  
Canada, Limited

Remi Lafrenière

for Air Canada

L.W. Stewart, Q.C.

for the Regional Municipality of  
Peel

P.W. Mingay, Q.C.

for the Town of Whitchurch-  
Stouffville

W.P. Butler

J.B. Stratton

for the Borough of Etobicoke

J.T. Weir, Q.C.

P. Lockett

for the City of Mississauga

G.H. Marsden

for the City of Brampton

J. Skells, Q.C.

for The Society for Aircraft  
Noise Abatement

J.A. Taylor

for the Town of Markham

J.T. Robson

Mr. Monaghan reads into the record the affidavit of J.W. Norman Delorme, Registrar-Administrator, as to publication of notice of this Hearing.

Exhibit 413 — Affidavit of J.W. Norman Delorme dated April 22nd, 1974.

Mr. MacKinnon opens with respect to Questions Nos. 1 and 2 and files a memorandum re Old Evidence relevant to Questions being heard.

Mr. MacKinnon calls:

ANDREW ELEK, already sworn and examined by Mr. MacKinnon

Exhibit 414A (B-55) — Originating-Terminating Forecasts for the Toronto Airports System, March 1974 Vol.I

Exhibit 414B (B-55) — Originating-Terminating Forecasts for the Toronto Airports System, March 1974, Vol.II

Recess — 3:45 p.m. to 4:00 p.m.

Mr. MacKinnon continues his examination of the witness

Exhibit 415 — Chart — Estimated Round Trips per 1000 people 1971 — of the Toronto-Centred Area

Exhibit 416 — Chart — Arrival Round Trips per 1000 people

Exhibit 417 — Chart — Distribution of People by Income Class

Exhibit 418 — Chart — Income and Population — Canada

Exhibit 419 — Chart — Canada — G.N.P.

Exhibit 420 — Chart — Income Distribution — Ontario

Exhibit 421 — Chart — Modifying Factors — 1961-1971

Recess — 5:00 p.m. to 7:00 p.m.

Mr. MacKinnon continues his examination of the witness

Exhibit 422 — Chart — Average Costs and Revenues of U.S./ Canadian International Airlines

Exhibit 423 — Chart — Passenger Miles, Fares and Consumer Spending

Exhibit 424 — Chart — Passenger Traffic Ratios (Resident)

Exhibit 425 — Chart — Resident and Non-resident Air Traffic (Deplanements)

Exhibit 426 — Chart — Forecast Total Traffic

Exhibit 427 — Chart — Forecast Total Traffic (Linear Scale)

Exhibit 428 — Chart — Toronto Hub — Previous and New Forecast of Annual Originating and Terminating Passengers  
Exhibit 429 — To be produced, Calculations by Mr. Elek  
Produced April 24: — Enplanements — U.S. Domestic (Millions)

WILBERT H. HOPPER, called, sworn and examined by Mr. MacKinnon

Exhibit 430A (B-2-1) — An Energy Policy for Canada Phase I Volume I, Analysis

Exhibit 430B (B-2-2-) — An Energy Policy for Canada Phase I Volume II, Appendices

Recess — 9:00 p.m. to 9:15 p.m.

JAMES GILLEN, called, sworn and examined by Mr. MacKinnon

Exhibit 431 (B57) — 1972 Toronto International Airport Study

Exhibit 432 — Chart — Regional Distribution of Air Passengers

Exhibit 433 — Chart — Income Distribution of Passengers

P. PEARSON, already sworn, called and examined by Mr. MacKinnon

Exhibit 434 (B58) — Air Cargo Forecasts: Update and Airport Assignment, February 1974

Exhibit 435 — Chart — Comparison of Forecast Cargo Growth Rates, 1970-1990

Exhibit 436 — Chart — 1963-1972 Behaviour of Air Cargo Users Costs — Canada

Exhibit 437 — Chart — Comparison of Cargo Growth at Quadrupling of Fuel Costs

D. ROSS, already sworn, called and examined by Mr. MacKinnon

Exhibit 438 — Southwestern Ontario Airports — Forecasts of Total Demand and Airport Patronage April, 1973

Exhibit 439 — Chart — Typical Graph of Relative Trip Rates — Super Zone H — Domestic Long Haul Sector

Exhibit 440 — Chart — Southwestern Ontario Airports — Forecasts of Originating and Terminating Passengers

Exhibit 441 — Chart — Percentages of Originating/Terminating Passengers Lost from Toronto Area Airports System as a

Result of Expanding Southwestern Ontario Airports — Based on January, 1972 Forecast

Exhibit 442 — Chart — Estimated Originating/Terminating Patronage showing upper and lower bounds

At 10:30 p.m. Hearing adjourned to 2:00 p.m. tomorrow.

**Tuesday the 23rd day of April, 1974 at 2:00 p.m.**

Mr. MacKinnon calls a panel for cross-examination

Panel: J. Gillen, L.G. Potvin, D. Ross, Dr. A. Elek, P. Beinhaker, Dr. P. Pearson, N. Doshi, O. Menezes, Brian Smith, R. Coulas, W. Nasi

Witnesses not already sworn, duly sworn

Cross-examined by Mr. McDonald for the City of Toronto

Recess — 3:30 p.m. to 3:45 p.m.

Mr. McDonald continues his cross-examination of the panel.

Recess — 5:30 p.m. to 7:15 p.m.

Mr. McDonald continues his cross-examination of the panel.

Further cross-examination by Mr. Waterman for the City of Toronto.

Cross-examination by Mr. Macaulay, Commission Counsel.

Recess — 9:00 p.m. to 9:15 p.m.

Mr. Macaulay continues his cross-examination of the panel.

Re-examined by Mr. Dunne for Government of Canada.

Mr. Macaulay, Commission Counsel, calls persons and organizations who have filed witness statements with the Commission.

**POLLUTION PROBE**

SANFORD OSLER, called, sworn and examined by Mr. Macaulay.

Exhibit 443 — Witness statement of Sanford Osler and brief to the Commission File AIC 203

Cross-examined by Mr. MacKinnon for Government of Canada

MRS. S. STEIMANN called. No appearance.

Exhibit 444 — Witness statement of Mrs. S. Steimann File AIC 3 and 3A

AL STIVER called. No appearance

Exhibit 445 — Witness statement of Al Stiver Files AIC 43 and 191

GORDON L. OATES called. No appearance

Exhibit 446 — Witness statement of Gordon L. Oates File AIC 202

CANADIAN OWNERS AND PILOTS ASSOCIATION called.  
No appearance

Exhibit 447 — Witness statement of A.C. Frosst File AIC 201

ONTARIO AVIATION COUNCIL called. No appearance

Exhibit 448 — Witness statement of W.T. Pentland File AIC 205

DONALD W. RITCHIE, called, sworn and examined by Mr. Macaulay

Exhibit 449 — Witness statement of D.W. Ritchie File AIC 208

No cross-examination

At 11:50 p.m. Hearing adjourned to 2:00 p.m. tomorrow.

**Wednesday the 24th day of April, 1974 at 2:00 p.m.**

WILBERT H. HOPPER, recalled for cross-examination by Mr. MacKinnon

Cross-examined by Mr. McDonald for City of Toronto

Cross-examined by Mr. Macaulay, Commission Counsel

Re-examined by Mr. MacKinnon

IAN HAMER already sworn, called and examined by Mr. Macaulay

Exhibit 450 — Evidence statement of Ian Hamer File AIC 206

H. RALPH STRATFORD, already sworn, called and examined by Mr. Macaulay.

Exhibit 451 — Evidence statement of H. Ralph Stratford File AIC 209

Exhibit 452 — Chart — Reduced Ministry of Transport Aircraft Traffic — 1985

Recess — 4:00 p.m. to 4:25 p.m.

Submission of City of Toronto

JOHN M. DUGGAN called, sworn and examined by Mr. Kaiser  
Exhibit 453 — Table of Distribution of Schedules in Nine  
Busiest Toronto Markets  
Exhibit 454 — Table — Scheduled Air Carrier Passenger  
Traffic — Top 25 U.S. Stations  
Cross-examined by Mr. MacKinnon for Government of  
Canada  
Cross-examined by Mr. Lockett for City of Mississauga  
Cross-examined by Mr. Macaulay, Commission Counsel  
No re-examination

JOHN KETTLE called, sworn and examined by Mr. Kaiser  
Cross-examined by Mr. MacKinnon for Government of  
Canada  
Cross-examined by Mr. Macaulay, Commission Counsel

ALBERT W. STIVER, called, sworn and examined by Mr.  
Macaulay  
Exhibit 455 — Copy Nickles Daily Oil Bulletin of Monday,  
March 25, 1974  
Exhibit 456 — Release of Canadian Imperial Bank of Com-  
merce dated April 4, 1974

At 6:00 p.m., Hearing adjourned to 2:00 p.m. tomorrow.

**Thursday the 25th day of April, 1974 at 2:00 p.m.**

Government of Canada leads reply evidence

Mr. Dunne calls:

MR. ROSS, DR. ELEK, MR. BEINHAKER, already sworn  
Mr. Dunne re-examines the panel

Cross-examined by Mr. McDonald for the City of Toronto  
Exhibit 457 — Series of Charts and Tables  
Cross-examined by Mr. Macaulay, Commission Counsel

Recess — 3:35 p.m. to 3:50 p.m.

Mr. J.D. Richard, Counsel for the Commission, speaks to  
Question B of Phase I, Hearing 3.



Mr. Dunne for Government of Canada, files

Exhibit 458 — NTIA (Pickering) A Study of Road Access for  
1980 — March, 1974

Mr. Dunne calls a panel for cross-examination on the  
Question.

The Panel: D. ROSS, M. MCLEOD, J. DECHIARA, J. VANCE, L.  
POTVIN, P. BEINHAKER, H. WONG, J.M. VAN LOON, J.M.  
CHOUKROUN (already sworn), B. CHAN (duly sworn)

Cross-examined by Mr. Waterman for City of Toronto

Cross-examined by Mr. Richard, Commission Counsel

At 4:45 Hearing adjourned to 9:30 a.m. April 29th, 1974

**Sitting at Toronto this 29th day of April at 9:30 a.m.**

Present: The Honourable Mr. Justice Hugh F. Gibson — Chairman  
Murray V. Jones, Esq. and Dr. Howard E. Petch —  
Commissioners

Organizational Hearing for Hearing 4 of Phase 1 on the following  
question:

4. In relation to the decisions of the Government of Canada  
that there is a need for a new International Airport for the  
central Ontario market, and that the new International  
Airport be located on the site near Pickering, Ontario,  
new evidence, if available, will be received in respect to  
the following question:

1) Is there any new evidence of any relevant factor that  
has not been considered by the Government of  
Canada, such for example as established facts on  
technology or travel habits, that may appear to affect  
any decision of the Government of Canada taken to  
date?

**APPEARANCES**

Ralph S. McCreath, Q.C.

Commmission Counsel

Bruce Small

for the Government of Canada

R. Waller

for the deHavilland Aircraft of  
Canada, Limited

Ralph Stratford on his own behalf

Ian Hamer on his own behalf

Mr. Hamer is heard on the matter of his presentation and on the matter of argument.

Mr. Stratford is heard on the matter of argument.

At 10:00 a.m. the Hearing adjourned.

**Sitting at Toronto, Monday the 6th day of May 1974 at 9:30 a.m.**

Present: The Honourable Mr. Justice Hugh F. Gibson — Chairman  
Murray V. Jones, Esq., and Dr. Howard E. Petch —  
Commissioners.

**Public Hearing on Question 4 of Phase I.**

4. In relation to the decisions of the Government of Canada that there is a need for a new International Airport for the central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario, new evidence if available, will be received in respect to the following question:
  - 1) Is there any new evidence of any relevant factor that has not been considered by the Government of Canada, such, for example, as established facts on technology or travel habits, that may appear to affect any decision of the Government of Canada taken to date?

**APPEARANCES**

Ralph S. McCreath, Q.C.

Robert W. Macaulay, Q.C. Counsel for the Commission

Barry A. Monaghan

B.J. MacKinnon, Q.C.

Thomas Dunne Counsel for Government of  
Canada

B.C. McDonald

R.N. Waterman Counsel for the City of Toronto

W.P. Butler

Counsel for the Borough of  
Etobicoke

P. Lockett

Counsel for the City of  
Mississauga

Mr. Monaghan reads into the record the affidavit of J.W. Norman Delorme re notice of hearings and files:

Exhibit 459 — Affidavit of J.W. Norman Delorme

Mr. Monaghan opens re procedure to be followed at this Hearing.

Mr. MacKinnon for Government of Canada makes his opening statement.

Mr. MacKinnon files memorandum of old evidence relevant to this Hearing.

A.K. BEAK recalled and examined by Mr. MacKinnon.

Exhibit 460 (B-61) — Aircraft Noise Reduction Program April 1974

Exhibit 461 (B-62) — Operational Procedures Designed to Reduce the Impact of Aircraft Noise in Areas in the Vicinity of Airports, April 1974.

Exhibit 462 (B-63) — Aircraft Technology for Civil Aviation. July 1973.

Exhibit 463A (B-64a) — Introduction of Jets — Joint Enroute Terminal System — April 1973

Exhibit 463B (B-64b) — JETS — Canada's Joint Enroute Terminal System, February 1974

Exhibit 463C — Automation in Air Traffic Control: The Canadian Approach

Exhibit 464 (C-4) — Noise Source Abatement Technology and Cost Analyses, Including Retrofitting EPA July 1973.

Exhibit 465 — Feasibility of STOL Operations at Toronto Island Airport, October 1973

Exhibit 466 — Chart — Turbofan Engine Noise Consideration

Exhibit 467 — Chart — Two Segment Approach.

Recess — 11:00 a.m. to 11:20 a.m.

Mr. MacKinnon continues his examination of Mr. Beak.

Mr. MacKinnon calls a panel for cross-examination.

The Panel: L. Fitton, L. Filotas, C. Simpson, P. Beinhaker, W.

Law, D. Stone, J. Belcher, D. Peters, W. McLeish, I. Ginsberg, A.K. Beak. (Those not sworn, duly sworn.)

Cross-examined by Mr. Bell for deHavilland Aircraft of Canada, Limited

Cross-examined by Mr. Lockett for the City of Mississauga.

Cross-examined by Mr. Waterman for the City of Toronto.

Cross-examined by Mr. Monaghan, Commission Counsel.

Recess — 4:00 p.m. to 4:15 p.m.

Mr. Monaghan continues his cross-examination of the panel.

Panel re-examined by Mr. MacKinnon.

Mr. Monaghan, Commission Counsel calls:

DONALD DEACON, sworn and examined by Mr. Monaghan.

Exhibit 468 — Evidence statement of Donald Deacon for the Caucus of Liberal Members of the Provincial Legislature of Ontario. File AIC 212.

Cross-examined by Mr. Waterman for the City of Toronto.

Cross-examined by Mr. MacKinnon for Government of Canada.

At 5:30 p.m. Hearing adjourned to 9:30 A.M. tomorrow.

**Tuesday, the 7th day of May, 1974 at 9:30 a.m.**

Mr. Monaghan opens and calls:

COL. CHARLES FOSTER, sworn and examined by Mr. Monaghan.

Col. Foster makes his presentation and shows slides:

FAA Noise Rule-Making Action on Noise.

Retrofit Cost/Effectiveness Analysis.

Factors included in computing NEF.

Turbofan Engine Noise Emission.

CF6-6 High Bypass Turbofan.

Acoustically Treated Nacelle Investigated in NASA Programme.

707 Nacelle Configurations.

727 Nacelle Configurations.  
Film re Acoustically treated Engine Nacelles.  
Refan Programme — JT8D.  
Two Segment Approach.  
FAR 36 Noise Certification Measurement Locations.  
Noise Levels at FAR Certification Measurement Locations.  
Noise Level at FAR Certification Measurement Location  
JT8D Powered Aircraft.  
Noise Level at FAR Certification Measurement Locations  
JT3D Aircraft.  
Composition of U.S. Carrier Fleet (Fixed Wing Aircraft).  
Aircraft Departures—All Services—50 U.S. States 1971-85-86  
— Percent by JT3D-8D Aircraft.  
Airports Selected for Analysis.  
Fleet Mix.  
Plot of La Guardia Airport.  
Composite Areas under Contours for Baseline Operations.  
Population Residing within the Contours for Baseline  
Operations.  
Percent of Retrofit Completed.  
Noise Retrofit Schedule — Number of Aircraft Retrofit.  
Cost of Noise Reduction.  
Cost of SAM and Refan.  
Noise Retrofit Program Total Costs — Current Dollars.  
Cost Effectiveness Comparisons — Seven Airports — Base Year  
1972.  
Time Effectiveness Comparisons — Seven Airports — 30 +  
NEF Contours  
Recess — 11:15 a.m. to 11:30 a.m.  
Time Effectiveness Comparison — Seven Airports — NEF  
40 + Contours.  
Cost Effectiveness Comparison — Seven Airports — NEF 30 +  
Contours.  
Cost Effectiveness Comparison — Seven Airports — NEF 40 +  
Contours.  
Summary of Estimated Payoff Periods for a Noise Retrofit  
Trust Fund.  
Noise Abatement Take-off Procedure.  
Take-off Noise Levels.

Median Sound Levels — Commercial Aircraft.

Median Sound Levels — Residential Areas.

Mr. Monaghan continues his examination of Col. Foster.

At 12:45 p.m. the Hearing adjourned to 2:30 p.m.

At 2:30 p.m.:

Mr. Monaghan continues his examination of Col. Foster.

Cross-examined by Mr. Dunne for Government of Canada.

Recess — 4:00 p.m. to 4:15 p.m.

Mr. Dunne continued his cross-examination of the witness.

Cross-examined by Mr. Weir for the City of Mississauga.

Cross-examined by Mr. Bell for deHavilland Aircraft of Canada, Limited

Cross-examined by Mr. Waterman for the City of Toronto.

Re-examined by Mr. Monaghan, Commission Counsel.

At 5:15 p.m. the Hearing is adjourned to 9:30 a.m. tomorrow.

**Wednesday, the 8th day of May, 1974 at 9:30 a.m.**

Mr. Bell, Counsel for deHavilland Aircraft of Canada, Limited makes his opening statement and calls

ROBERT B. McINTYRE, sworn and examined by Mr. Bell.

Exhibit 469 — Submission of de Havilland Aircraft of Canada, Limited File AIC 218.

Mr. McIntyre shows slides demonstrating his remarks as follows:

Contents of Conclusions and Recommendations.

Toronto Airport System Planning 1974.

J. RONALD JACKSON, called, sworn and examined by Mr. Bell.

Slides shown:

Toronto Airport System Planning and International Trends in the Development of Air Transportation.

Annual Enplaned/Deplaned Passenger Forecast for Toronto to Year 2000.

Comparison of Passenger Forecast Growth Ratios.



- Revised Annual Enplaned/Deplaned Passenger Forecast.
- Comparison of Passenger Forecasts for Toronto.
- Comparison with Major International Airports.
- Ranking of Major International Airports on Passenger Volume.
- Passenger Forecast for Major Airports 1973-1985.
- Air Carrier Operations Forecast for Major Airports 1973-1985.
- Size of Major Airport Sites.
- Distance to Central Business District from Major Airports.
- Ground Access Distances to Malton and Pickering.
- International Trends in the Development of Air Transportation.
- Conclusions of deHavilland on the First Phase of the Presentation.
- Malton Development Plan 1975-1985.
- Chart of Malton Development Plan 1975-1985.
- FAA Report on Airport Capacity, January 1974.
- Passenger Forecasts for Major U.S. Airports and Toronto.
- Operations Forecast for Major U.S. Airports and Toronto.
- Peak Hourly Operations at Major Airports:
- Conclusions of deHavilland on Second Phase of the Presentation.
- Malton Noise Forecasts 1972-1985.
- Aircraft Noise Terminology.
- FAR 36 Noise Measurement Locations.
- Progression Takeoff Noise Reduction.
- Progression Approach Noise Reduction.
- Noise Footprint B707, DC-8 Type.
- Noise Footprint. B747.
- Noise Footprint, B727.
- Noise Footprint for deHavilland Dash 7.
- Comparison of Airplane Noise Footprints.
- 1978 NEF Contours Malton.
- Map 1978 NEF Contours Malton.
- Map 1980 NEF Contours Malton.
- Map 1982 NEF Contours Malton.
- Map 1985 NEF Contours Malton.
- Comparison of Noise Zones Malton 1972-1985.

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Comparison of Malton Airport NEF Forecasts 1980.  
Noise Summary.

Conclusions of deHavilland on Phase 3 of the Presentation.  
Recess — 11:00 a.m. to 11:20 a.m.

Mr. Jackson continues his evidence.

Diversion to Secondary Airports

Photo of Toronto Island Airport.

Chart of Toronto Island Stolport — 1975.

Canada's Major Growth and Traffic Zone — STOL Systems —  
Origin — Twin Otter.

Photo — Dash 7 Aircraft.

Quiet STOL Operations and Toronto Island Airport.

Toronto Island Airport NEF Contours.

Photo — Toronto Island Airport.

Total Trip Time and Cost — Montreal to Toronto STOL

1977 — System Extension with Dash 7 — STOL

Conclusions of deHavilland on Phase 4 of the Presentation.

Diagram — Pickering Airport Options — 1980.

How much capacity will Toronto require by 2000.

Chart — Malton Development Potential — 1990-2000.

Malton Airport NEF Contours 1985-1995.

Conclusions of deHavilland on Phase 5 of the Presentation.

Toronto Airport Systems Cost.

Comparison of Toronto Airport Systems Cost.

Transit Access Routes to Malton and Pickering Airports.

Land Use in the Toronto Centred Region.

Conclusions of deHavilland on Phase 6 of the Presentation.

Summary — Proceed with NTIA Pickering in 1975?

Recommendations.

DR. H.S. RIBNER, called, sworn and examined by Mr. Bell.

Slides shown through witness' evidence:

Malton Airport NEF Contours 1980

Malton Airport NEF Contours 1985

R.B. WHITING, called, sworn and examined by Mr. Bell.

JOHN R. WILEY, called, sworn and examined by Mr. Bell.

DR. ROBERT W. SIMPSON, called, sworn and examined by Mr. Bell.

Slides shown during witness' evidence:

IFR Capacity Increases

Chart — San Francisco International Airport

Chart — Denver Stapleton International Airport

Chart — Newark Airport Layout

ROBERT B. McINTYRE, recalled and further examined by Mr. Bell.

Recess — 1:00 p.m. to 2:30 p.m.

Mr. Bell calls a panel for cross-examination.

The Panel: Robert B. McIntyre, J. Ronald Jackson, Dr. H.S. Ribner, R.B. Whiting, Dr. J. Wiley, Dr. Robert W. Simpson, Already sworn, Ronald Cicci, Brian Eggleston, A.P. Toplis, duly sworn.

Cross-examined by Mr. Weir for the City of Mississauga.

Recess — 4:00 p.m. to 4:15 p.m.

Mr. Weir continues his cross-examination of the panel.

Cross-examined by Mr. Waterman for the City of Toronto.

Recess — 5:30 p.m. to 7:00 p.m.

Cross-examined by Mr. MacKinnon for Government of Canada.

Further cross-examined by Mr. Dunne for Government of Canada.

Recess — 8:45 p.m. to 9:00 p.m.

Mr. Waterman for City of Toronto produces questions and answers thereto to Col. Foster. The same are taken as read and taken into the transcript.

Mr. MacKinnon for Government of Canada produces information on agricultural attitudes on airport which he had undertaken to produce. The same are taken as read and taken into the transcript.

Cross-examined by Mr. Monaghan, Commission Counsel

At 10:00 p.m. the Hearing adjourned to 10:00 a.m. tomorrow.

**Thursday, the 9th day of May, 1974 at 10:00 a.m.**

Mr. McDonald for the City of Toronto calls

DR. GUNTHER VOSS, sworn and examined by Mr. McDonald.  
Exhibit 470 — Evidence statement of Dr. Gunther Voss. File  
AIC 216.

Cross-examined by Mr. MacKinnon for Government of Canada.  
Exhibit 471 — Chart showing Pickering Airport in relation to  
Assiniboine Park and Zoo.

Cross-examined by Mr. Stratton for the Borough of Etobicoke.

Cross-examined by Mr. Macaulay for the Commission.

Re-examined by Mr. McDonald for the City of Toronto.

LAWRENCE H. DAY called, sworn and examined by Mr.  
McDonald.

Slides shown during Mr. Day's evidence

New Directions in Communications Services

Business Planning

Travel/Communication Services

Technological Imperatives

Information Volume Transfer

Cost Benefit Analysis

Behavioural Issues

Environmental Issues

Energy Conservation

Communications, Transportation and Energy Conservation

Forecasts and Conclusions

Exhibit 472 — Evidence statement of Lawrence H. Day. File  
AIC 214.

JOHN M. DUGGAN, already sworn, recalled and examined by  
Mr. McDonald.

Further examined by Mr. Waterman for the City of Toronto.

Cross-examined by Mr. Dunne for Government of Canada.

Further cross-examined by Mr. Sharpe for Government of Canada.

MR. DAY recalled and cross-examined by Mr. Stratton for the Borough of Etobicoke.

Cross-examined by Mr. Macaulay, Commission Counsel.

MR. DUGGAN recalled and cross-examined by Mr. Monaghan, Commission Counsel.

Recess — 12:45 p.m. to 2:10 p.m.

Mr. Macaulay, Commission Counsel, calls

DR. DOUGLAS RICHARDSON, sworn and examined by Mr. Macaulay.

Dr. Richardson shows a series of slides depicting houses, villages and pastoral scenes on the Pickering airport site.

Mr. Monaghan files

Exhibit 473A — Agreement dated May 15, 1972 between Bay Green Developments Ltd. and the Corporation of the Town of Mississauga et al

Exhibit 473B — Engineering agreement dated May 15, 1972 between Bay Green Developments Ltd. and the Town of Mississauga et al

Mr. Macaulay files

Exhibit 474 — Witness statement of Douglas Richardson.

Mr. Monaghan calls

WILLIAM PENTLAND, Ontario Aviation Council, sworn and examined by Mr. Monaghan.

ALAN C. FROSST, Canadian Owners and Pilots Association, called, sworn and examined by Mr. Monaghan.

Exhibit 475 — Brochure inviting membership in the Canadian Owners and Pilots Association.

Exhibit 476 — Chart showing general aviation airports in the Metropolitan Toronto area.

Mr. Dunne for Government of Canada cross-examines a panel composed of Mr. Pentland and Dr. Frosst.

DR. NORVILLE R. RICHARDS, called, sworn and examined by Mr. Macaulay

Recess — 3:45 p.m. to 4:00 p.m.

Cross-examined by Mr. Dunne for Government of Canada.

Re-examined by Mr. Macaulay.

DR. WINFRIED FRUEHAUF called, sworn and examined by Mr. Macaulay

Exhibit 477 — Evidence statement of Dr. Winfried Fruehauf.  
File AIC 207.

Cross-examined by Mr. McDonald for the City of Toronto.

Cross-examined by Mr. Dunne for Government of Canada.

Mr. Dunne requests that transcripts be forwarded to Mr. Hopper at Ottawa for reply and indicates an expectation that reply be received Monday.

So ordered.

Exhibit 478 — Graph 2M out of Submission to National Energy Board by Gulf Oil Canada 1973. To be supplied.  
Produced May 10, 1974.

DR. DOUGLAS RICHARDSON recalled and cross-examined by Mr. Dunne.

Exhibit 479 — Architectural Evaluation of the North Pickering Project and Toronto Area Airports Project Site.

Recess — 5:00 p.m. to 7:15 p.m.

Mr. Macaulay, Commission Counsel calls

BARRY CONN-HUGHES called — Not present.

Exhibit 480 — Evidence statement of Barry Conn-Hughes File AIC 211.

MRS. BRENDA DAVIES called — Not present.

Exhibit 481 — Evidence statement of Mrs. Brenda Davies File AIC 213.

PROFESSOR C.D. MORLEY called — Not present.

IAN HAMER called, sworn and examined by Mr. Macaulay.

Exhibit 482A — Evidence statement of Ian Hamer, File AIC 210

Exhibit 482B — Supplement to evidence statement of Ian Hamer.



MRS. BRENDA DAVIES again called and examined by Mr. Macaulay.

At 8:05 p.m. the Hearing adjourned to 9:30 a.m. tomorrow.

**Friday the 10th day of May 1974 at 9:30 a.m.**

Mr. Monaghan calls:

D.A. MCMILLAN for The Regional Municipality of Niagara, sworn and examined by Mr. Monaghan.

Exhibit 483 — Evidence statement of The Regional Municipality of Niagara File AIC 18

CONRAD EIDT called, sworn and examined by Mr. Monaghan

Cross-examined by Mr. MacKinnon for the Government of Canada.

Exhibit 484 — Five resolutions of Council for The Regional Municipality of Niagara dated September 20, 1973; September 20, 1973; October 4, 1973; September 26, 1973; December 6, 1973; January 3, 1974.

H. RALPH STRATFORD, already sworn, recalled and examined by Mr. Macaulay.

Exhibit 485 — Evidence statement of H. Ralph Stratford AIC 217

Exhibit 486 — Letter, April 29, 1974 from Stratford to Airport Inquiry Commission with attached material

Exhibit 487 — Article entitled “Putting all our Noise Technology to Work”

Cross-examined by Mr. Bell for the deHavilland Aircraft of Canada, Limited.

Cross-examined by Mr. Waterman for the City of Toronto.

Mr. Monaghan calls:

JOHN HENRY TERRY WADE, sworn and examined by Mr. Monaghan

Exhibit 488 — Chart — PNDB vs. Distance — Approach

Exhibit 489 — Chart — PNDB vs. Distance — Takeoff

Exhibit 490 — Chart — showing Noise Contours at Toronto Malton Airport

Recess — 11:00 a.m. to 11:15 a.m.

Cross-examined by Mr. Bell for the deHavilland Aircraft of Canada Limited.

Cross-examined by Mr. Weir for the City of Mississauga

Cross-examined by Mr. Dunne for Government of Canada

Re-examined by Mr. Monaghan

Reply

Mr. MacKinnon files his letter to Counsel for the Commission fulfilling undertaking to provide:

- a) Total present and committed fleet mix by aircraft type for major domestic airlines which serve Toronto through Malton.
- b) Scheduled Aircraft Departures between 0001 and 0700 from Malton by aircraft type and destination.

Attached as Appendices A and B respectively (Read into record)

Exhibit 491 — Answers to Questions raised by the Commission re Duffin Creek

Mr. MacKinnon calls a panel:

W. McLeish, K.N. Scott (sworn) L. Potvin, P. Beinhaker, W. Law, A.K. Beak, G. Sladek, Dr. P. Pearson, Dr. R.I. Coulas, J. Vance, Dr. L. Filotas, L. Fitton, C. Simpson, R. Edmiston, C. Wentzell, I. Ginsberg, Recalled.

Mr. MacKinnon examines the Panel

Recess — 1:00 p.m. to 2:30 p.m.

Mr. MacKinnon files charts relevant to Exhibit 491 and continues his examination of the panel

Exhibit 491 — Chart NTIA Pickering and Surrounding Area — Conservation Areas — Golf Courses — NEF Contours shown are for 1990, All Traffic

Exhibit 491B — Chart — NTIA Pickering and Surrounding Area Conservation Areas — Golf Courses — NEF Contours shown are for 1980 — All Traffic

Exhibit 492 — Chart — Summary of Existing Areas and First Estimate of Future Requirements to accommodate Airport needs to the year 2000

Exhibit 493 — Chart — Alternative Plan B2

Exhibit 494 — Chart — Forecast Demand Land Area Required to 1990 at Malton

Exhibit 495 — Chart — Additional Runway within Existing Airport Boundaries — Malton

Exhibit 496 — Chart — Additional Runway within Existing Airport Boundaries — Separation from 14/32 — 2500 ft.

Exhibit 497 — Chart — Additional Runway Within Existing Airport Boundaries — Malton Separation from 14/32 — 3500 ft.

Exhibit 498 — Chart — Additional Runway within Existing Airport Boundaries — Malton Separation, 14/32 — 4400 ft.

Exhibit 499 — Chart — TIA Malton — Noise Contours NEF to 1980 — 4-Runway Configuration

Exhibit 500 — Chart — Takeoff Noise Levels

Exhibit 501 — Chart — TIA Malton 1973 — Noise Contours, Actual

Exhibit 502 — Chart — NEF Contours, Malton 1985 — All Traffic

Exhibit 503 — Chart — 1973 Population Affected

Exhibit 504 — Chart — NEF Contours Malton, 1985 — All Traffic

Exhibit 505 — Chart — NEF Contours Malton, 1990 — All Traffic

Exhibit 506 — Chart — NEF Contours Malton, 1990 — All Traffic

Exhibit 507 — Chart — 1985 NEF Contours Malton, Scenario G — All Aircraft meeting FAR 36

Exhibit 508 — Chart — NEF Contours 1985 at Malton — Scenario G

Exhibit 509 — Chart — NEF Contours Malton, 1990 — Scenario G

Recess — 4:00 p.m. to 4:20 p.m.

Panel cross-examined by Mr. Waller for the deHavilland Aircraft of Canada, Limited.

Panel cross-examined by Mr. Weir for the City of Mississauga.

Panel cross-examined by Mr. McDonald for the City of Toronto.

Further cross-examination by Mr. Waterman for the City of Toronto.

Panel cross-examined by Mr. Monaghan, Commission Counsel

Mr. McDonald files:

Exhibit 510 — Background Data for Document B55 (being information undertaken to be produced by Dr. Elek during his testimony)

At 6:00 p.m., Hearing adjourned to 9:30 a.m. Tuesday for argument.

**Sitting at Toronto, Monday the 13th day of May 1974 at 9:30 a.m.**

Present: The Honourable Mr. Justice Hugh F. Gibson — Chairman

Organizational Hearing on Phase II, Hearings 1 and 2 on the following questions:

1. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date, that there is a need for a new International Airport for the central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario.

To receive any evidence in respect to the following questions:

- 1) Should the new International Airport be principally international in character or should it serve some other function?
  - 2) What airline traffic sections or parts thereof should be allocated to the new International Airport in the major first phase in order to relieve the disturbance caused by flight operations at Malton?
  - 3) To what extent should domestic and United States traffic be served at the new International Airport in addition to the airport having an international role?
  - 4) Should the opening date of the major first phase be 1980 or later?
  - 5) Should there be a partial or limited opening of the new International Airport prior to 1980?
2. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date, that there is a need for a new International Airport for the central Ontario market, and that the

new International Airport be located on the site near Pickering, Ontario.

To receive any evidence in respect to the following questions:

- 1) What should be the nature of the ground access to the new International Airport?
- 2) What should be the nature of the inter-airport transportation between Toronto International Airport Malton, and the new International Airport?
- 3) From the point of view of passenger convenience, should a downtown terminal or terminals be established in respect of Toronto International Airport, Malton, or the new International Airport?

Mr. Ralph S. McCreath, Q.C. appeared as Counsel for the Commission.

Thomas Dunne appeared for the Government of Canada.

Mr. McCreath advises the Chairman that Mr. Barnes, a representative of the Toronto Transit Commission is present and that a submission may be made by that body. Mr. McCreath reads into the record from the affidavit of J.W.N. Delorme that notice of Phase II Hearings was published April 8, 1974.

At 9:40 a.m. the Hearing was adjourned.

**Sitting at Toronto the 14th day of May 1974 at 9:30 a.m.**

Present: The Honourable Mr. Justice Hugh F. Gibson - Chairman  
Murray V. Jones, Esq. and Dr. Howard E. Petch -  
Commissioners

Mr. Dunne files per undertaking to Commission Counsel.

Exhibit 511 - Chart - Location of cemeteries

Exhibit 512 - Chart - Location of churches

## **ARGUMENT ON PHASE I**

Mr. Thomas Dunne is heard for the Government of Canada

Mr. J.T. Weir, Q.C. is heard for the City of Mississauga.

Recess - 11:15 a.m. to 11:30 a.m.

Mr. J.D. Bell, Q.C. is heard for the de Havilland Aircraft of Canada, Limited

Mr. P.W. Mingay, Q.C. is heard for the Town of Whitchurch-Stouffville

Recess - 1:00 p.m. to 2:30 p.m.

Mr. Macaulay files:

Exhibit 513- Letter dated May 14, 1974, from Mr. Dunne to Mr. B.A. Monaghan, Commission Counsel, re: Undertaking to Produce:

The number of DC-8 movements in 1972 as compared to the number of DC-8 movements forecast for 1982.

Information contained in Appendices A and B

Mr. W.P. Butler is heard for the Borough of Etobicoke.

Mr. J.T. Robson is heard for the Town of Markham.

Mr. D.J. Wright is heard for the City of Toronto.

Mr. Thomas Dunne replies for the Government of Canada.

At 4:05 p.m. the Hearing adjourned to Tuesday, May 21, 1974, at 9:30 a.m.

### **Sitting at Toronto this 21st day of May 1974 at 9:30 a.m.**

Present: The Honourable Mr. Justice Hugh F. Gibson - Chairman  
Murray V. Jones, Esq. and Dr. Howard E. Petch -  
Commissioners

#### **Hearing I of Phase II**

1. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date, that there is a need for a new International Airport for the central Ontario market and that the new International Airport be located on the site near Pickering, Ontario.



To receive any evidence in respect to the following questions:

- 1) Should the new International Airport be principally international in character or should it serve some other function?
- 2) What airline traffic sectors or parts thereof should be allocated to the new International Airport in the major first phase in order to relieve the disturbance caused by flight operations at Malton?
- 3) To what extent should domestic and United States traffic be served at the new International Airport in addition to the airport having an international role?
- 4) Should the opening date of the major first phase be 1980 or later?
- 5) Should there be a partial or limited opening of the new International Airport prior to 1980?

### **APPEARANCES**

R.S. McCreath, Q.C.	
R.W. Macaulay, Q.C.	
B.A. Monaghan	Commission Counsel
J.D. Richard	
B.J. MacKinnon, Q.C.	
Thomas Dunne	for the Government of Canada
R. Sharpe	
R.N. Waterman	
B.C. McDonald	for the City of Toronto
G.E. Kaiser	
J.R. Boxma	for the Town of Pickering
J.D. Bell, Q.C.	
R.E. Waller	for the de Havilland Aircraft of Canada, Limited
Remi Lafrenière	for Air Canada
L.W. Stewart, Q.C.	for The Regional Municipality of Peel
P.W. Mingay, Q.C.	for the Town of Whitchurch- Stouffville

W.P. Butler	
J.B. Stratton	for the Borough of Etobicoke
J.T. Weir, Q.C.	
P. Lockett	for the City of Mississauga
G.H. Marsden	for the City of Brampton
J. Skells, Q.C.	for the Society for Aircraft Noise Abatement
J.A. Taylor	
J.T. Robson	for the Town of Markham

The Chairman directs that Mr. Hopper's comments on Dr. Fruehauf's evidence, supplied by Counsel for the Government of Canada, be marked as:

Exhibit 514 - Mr. Hopper's comments on Dr. Fruehauf's evidence

Mr. Monaghan, Counsel for the Commission, makes an opening statement re conduct of this Phase of the Hearings.

Mr. MacKinnon opens for the Government of Canada and calls:

L.G. POTVIN, already sworn, examined by Mr. MacKinnon.

Exhibit 515 (B 65) - Summary of Airport Roles and Traffic Assignment - Toronto Area Airports, May 1974

Exhibit 516 (C 6) - NTIA - Initial Stage of First Phase Development Schedule, April 1973

Exhibit 517 (B 66) - NTIA - Opening Date Summary Schedule - May 1974

Exhibit 518 (B 25) - Cost Projections to the year 2000, TIA Malton and NTIA Pickering, October 1973

Exhibit 519 (B 60) - Financial Planning Estimates to the year 2000. Based on the Peak Hour Factor - March 1974.

Exhibit 520 - Chart - 77 Zone System showing Region of Indifference.

Exhibit 521 - Chart - Practical Options for Assignment of Traffic to TIA/NTIA

Exhibit 522 - Chart - Major Traffic Segments

Exhibit 523 - Chart - Possible Assignments of Total O and D Traffic between NTIA and TIA in 1982

Exhibit 524 - Chart - Criteria for Evaluation of Alternate Roles TIA/NTIA

Exhibit 525 - Chart - Average Access or Egress Time per Originating or terminating Passengers in Minutes - 1980

Exhibit 526 - Chart - Summary of Alternative Opening Roles NTIA 1980.

Recess - 11:00 a.m. to 11:30 a.m.

MR. POTVIN continues his evidence re Exhibit 516.

Exhibit 527 - Chart - NTIA Summary Schedule

Exhibit 528 - Chart - Comparison of Terminal Building requirements NTIA or West Development TIA

Exhibit 529 - Chart - Scheme B 2 for Estimate to year 2000 for Financial Planning Model only.

Exhibit 530 - Chart - Costs - Peak Hour Passengers Discounted to 1973 at 8% - Cumulative to year 2000.

Mr. MacKinnon calls a panel for cross-examination.

The panel:

P. Beinhaker

L.G. Potvin

A. Elek

R. Coulas

R. Gwilliam

C. Simpson

Cross-examined by Mr. Waterman for the City of Toronto.

Recess - 12:30 p.m. to 2:30 p.m.

Mr. Waterman continues his cross-examination of the panel.

Cross-examined by Mr. Monaghan for the Commission. No re-examination.

GORDON FINLAY called, sworn and examined by Mr. Monaghan, Commission Counsel.

Cross-examined by Mr. Lockett for the City of Mississauga.

Cross-examined by Mr. Stratton for Borough of Etobicoke.

Cross-examined by Mr. Waterman for the City of Toronto.

at 3:40 p.m. Hearing adjourned to June 3 at 9:30 a.m.

**Sitting at Toronto this 3rd day of June 1974 at 9:30 a.m.**

Present: The Honourable Mr. Justice Hugh F. Gibson - Chairman  
Murray V. Jones. Esq. and Dr. Howard E. Petch -  
Commissioners

**Hearing 2 of Phase II**

2. In relation to the air transportation needs of the central Ontario market and bearing in mind the decisions of the Government of Canada taken to date, that there is a need for a new International Airport for the central Ontario market, and that the new International Airport be located on the site near Pickering, Ontario.

To receive any evidence in respect to the following questions:

- 1) What should be the nature of the ground access to the new International Airport?
- 2) What should be the nature of the inter-airport transportation between Toronto International Airport, Malton and the new International Airport?
- 3) From the point of view of passenger convenience, should a downtown terminal or terminals be established in respect of Toronto International Airport, Malton or the new International Airport

**APPEARANCES**

R.S. McCreath, Q.C.

R.W. Macaulay, Q.C.

B.A. Monaghan

J.D. Richard

Commission Counsel

B.J. MacKinnon, Q.C.

Thomas Dunne

R. Sharpe

for the Government of Canada

R.N. Waterman

B.C. McDonald

G.E. Kaiser

for the City of Toronto

J.R. Boxma

for the Town of Pickering

J.D. Bell, Q.C.

R.E. Waller	for the de Havilland Aircraft of Canada, Limited
Remi Lafrenière	for Air Canada
L.W. Stewart, Q.C.	for The Regional Municipality of Peel
P.W. Mingay, Q.C.	for the Town of Whitchurch- Stouffville
W.P. Butler	
J.B. Stratton	for the Borough of Etobicoke
J.T. Weir, Q.C.	
P. Lockett	for the City of Mississauga
G.H. Marsden	for the City of Brampton
J. Skells, Q.C.	for the Society of Noise Abatement

J.A. Taylor

J.T. Robson for the Town of Markham

Mr. Macaulay opens for the Commission re conduct of this  
Hearing.

Mr. Monaghan refers to slides shown by Colonel Foster during  
his evidence and files prints of the slides as:

Exhibit 531 - Prints of slides shown by Colonel Foster during  
his evidence

Mr. Monaghan reads into the record the questions before the  
Commission at this Hearing.

Mr. MacKinnon opens for the Government of Canada.

Mr. Dunne leads evidence for Government of Canada and recalls  
JOHN VANCE, already sworn, recalled and examined by Mr.  
Dunne.

Exhibit 532 - Chart - Existing or Committed Regional  
Highway Network

Exhibit 533 - Chart - Existing and Committed Rapid Transit  
Network

Exhibit 534 - Chart - Test Network Possible Transit Access to  
Toronto Airports

Mr. Dunne recalls:

DR. P. PEARSON, already sworn, examined by Mr. Dunne.

Exhibit 535 (B 67) - A Review of Model Split Experience in Airport Ground Access Planning May 1974

Exhibit 536 - Chart - Comparison of Daily Airport Access Trips - 1972, Two Way Person Trips by Air Passenger.

Exhibit 537 - Chart - Available Access Modes - World Airports 1972.

Exhibit 538 - Chart - Ground Access Patronage by Private Modes, Selected Airports - 1972

Exhibit 539 - Chart - Existing and Proposed Transit Services at Selected Airports - Actual and Projected Patronage

Exhibit 540 - Chart - Airports with Off-site Terminals 1972.

HARVEY WAYNE KRISS called, sworn and examined by Mr. Dunne.

Exhibit 541 (B 68) - Off-site Terminal and Transit Systems First Stage Evaluation May 1974.

Recess - 11:00 a.m. to 11:30 a.m.

Exhibit 542 - Off-site Terminal and Transit Systems - First Stage Evaluation

Mr. Kriss shows a series of slides demonstrating the charts contained in the above exhibit.

LAWRENCE POTVIN, already sworn, recalled and examined by Mr. Dunne.

Exhibit 543 (B 69) - Report to Metro Centre Transportation Task Force on Airport Passenger Demand and Metro Centre Remote Processing Facilities - October 1973

Exhibit 544 - Chart - Metro Centre Air Terminal Catchment Area (Year 2000)

Mr. Dunne calls a panel for cross-examination consisting of:

L. Potvin

P. Ross

P. Pearson

M. McLeod

J. Vance

R. Gwilliam

P. Beinhaker

P. Joicey

H. Kriss



Cross-examined by Mr. Stratton for the Borough of Etobicoke.

Cross-examined by Mr. Macaulay, Commission Counsel.

Recess - 1:00 p.m. to 2:30 p.m.

Mr. Macaulay resumes his cross-examination of the panel.

Exhibit 545B - *The Aeronautics Act* Chapter A-3 R.S.c.2s.1 and Chapter 20 S.C. 1973

Exhibit 545C - Letter from J.H. MacKinnon, Q.C. Counsel for the Government of Canada, to Ralph S. McCreath, Q.C., Commission Counsel, dated 24 May, 1974.

No re-examination.

Government of Canada closes its evidence.

Mr. Macaulay calls JERZY ORZECZOWSKI, no response.

Exhibit 546 - Evidence statement of Jerzy Orzechowski, File AIC 44

PAUL D. SHAVER, called, sworn and examined by Mr. Macaulay, Commission Counsel.

Cross-examined by Mr. Weir for the City of Mississauga.

Recess - 4:00 p.m. to 4:15 p.m.

Cross-examined by Mr. Waterman for the City of Toronto.

Cross-examined by Mr. Dunne for the Government of Canada.

Cross-examined by Mr. Waller for the de Havilland Aircraft of Canada, Limited.

Re-examined by Mr. Monaghan for the Commission.

Mr. Macaulay, Counsel for Commission files:

Exhibit 547 - Letter, May 31, 1974 to R.W. Macaulay, Commission Counsel, from A.T.C. McNab, Deputy Minister for the Ministry of Transportation and Communications for Ontario together with attachment being a report entitled Go-Urban and the Transit Demonstration System, April 9, 1974.

Mr. Macaulay, Commission Counsel, calls on The Regional Municipality of Durham, no response.

Exhibit 548 - Evidence statement of The Regional Municipality of Durham, File AIC 223.

At 4:45 p.m. the Hearing adjourned to 9:30 tomorrow morning.

**Tuesday, the 4th day of June, 1974, at 9:30 a.m.**

Mr. Macaulay opens for the Commission and states there will be no argument of Phase II.

Mr. Monaghan on behalf of the Commission states that Air Canada will make a submission and calls:

CLAYTON H. GLEN, sworn and examined by Mr. Monaghan  
The witness shows a number of slides.

Recess - 11:00 a.m. to 11:15 a.m.

Mr. Monaghan continues his examination of the witness.  
Witness stands down.

A.T. WILEY called, sworn and examined by Mr. Monaghan.

Mr. Glen recalled and examination continued by Mr. Monaghan. Witness stands down.

DAVID LAURENCE ATHERTON called, sworn and examined by Mr. Macaulay.

Cross-examined by Mr. Stratton for the Borough of Etobicoke.  
Cross-examined by Mr. Dunne for Government of Canada.

Recess - 12:45 p.m. to 2:15 p.m.

Mr. Macaulay, Counsel for the Commission, files:  
Exhibit 549 - Copies of slides shown by Professor Atherton

1. Time vs distance for a Toronto-Montreal business trip.

2. Feasible areas for Central Airport.

Mr. Glen recalled and examination continued by Mr. Monaghan.

Cross-examined by Mr. Weir for the City of Mississauga.

Cross-examined by Mr. Waller for the de Havilland Aircraft of Canada, Limited.

Recess - 3:50 p.m. to 4:00 p.m.

Cross-examined by Mr. Stratton for the Borough of Etobicoke.

Cross-examined by Mr. Waterman for the City of Toronto.

Cross-examined by Mr. Stevens on his own behalf.

Cross-examined by Mr. Dunne for Government of Canada.

Mr. Wiley cross-examined by Mr. Dunne.

Mr. Monaghan files:

Exhibit 550 - Copies of slides shown by Mr. Glen during his evidence

Exhibit 551 - Brochure - Energy in Transportation October 1973.

Exhibit 552 - Dual Lane Runway Study February, 1974

MAXWELL WARD called, sworn and examined by Mr. Monaghan.

Cross-examined by Mr. Dunne for Government of Canada.

At 6:00 p.m., Hearing adjourned to 1:30 p.m. tomorrow.

**Wednesday, the 5th day of June 1974 at 1:30 p.m.**

Mr. Dunne for Government of Canada introduces into evidence:

Exhibit 553 - Analysis of Dual Lane Runways Final Report March 1974

Mr. Monaghan, Commission Counsel, calls:

THOMAS M. SULLIVAN, sworn and examined by Mr. Monaghan and Mr. Macaulay

Recess - 3:15 p.m. to 3:30 p.m.

Mr. Monaghan continues his examination of the witness.

Cross-examined by Mr. Waller of the de Havilland Aircraft of Canada, Limited

Cross-examined by Mr. Stratton for the Borough of Etobicoke.

Cross-examined by Mr. Waterman for the City of Toronto.

Cross-examined by Mr. Dunne for Government of Canada.

At 5:20 p.m. the hearings adjourned.

**Sitting at Toronto, this 31st day of July, 1974 at 10:00 a.m.**

Present: The Honourable Mr. Justice Hugh F. Gibson - Chairman  
Murray V. Jones, Esq. Dr. Howard E. Petch  
Commissioners

Organizational Hearing for the purpose of determining the procedure to be followed at a Public Hearing to receive evidence of

persons involved in the preparation of the "Pickering Impact Study" prepared for the City of Toronto by Diamond & Myers in co-operation with Jack B. Ellis & Associates Ltd. and the Institute of Environmental Research Inc.

### APPEARANCES

Ralph S. McCreath, Q.C.

B.A. Monaghan

J.D. Richard

Commission Counsel

B.J. MacKinnon, Q.C.

R. Sharpe

for the Government of Canada

D.J. Wright, Q.C.

D.H. MacOdrum

for the City of Toronto

P. Lockett

for the City of Mississauga and  
the Regional Municipality of  
Peel

J.B. Stratton

for the Borough of Etobicoke

J.R. Boxma

for the Corporation of the Town  
of Pickering

Mr. Monaghan, Commission Counsel, opens and reads into the record the affidavit of J.W.N. Delorme, Registrar Administrator of the Commission, of publication of Notice of Hearings.

Exhibit 554 - Affidavit of J.W.N. Delorme dated July 30, 1974 with Exhibits A and B attached thereto.

Exhibit 555 - Writ of subpoena *duces tecum* issued to Jack Diamond dated 27th June 1974 together with affidavit of service of Ernest Spiteri

JACK DIAMOND - called, sworn and examined by Mr. Monaghan, Commission Counsel

Exhibit 556A - Volume 1, Summary Report, Pickering Impact Study

Exhibit 556B - Volume 2, Pickering Impact Study

Exhibit 557 - *Curriculum Vitae* of A.J. Diamond

Exhibit 558 - Pickering Impact Study, Phase 1, Study Design Diamond & Myers, March 1974 (to be produced) Produced August 20, 1974

Recess - 11:30 a.m. to 11:40 a.m.

Cross-examined by Mr. Sharpe for Government of Canada

Cross-examined by Mr. Marsden for City of Brampton

No Cross-examination by other counsel present

Exhibit 559 - Writ of subpoena *duces tecum* issued to H. Peter Homenuck dated 27th June together with affidavit of service of Ernest Spiteri.

H. PETER M. HOMENUCK called, sworn and examined by Mr. Monaghan, Commission Counsel

Exhibit 560 - *Curriculum vitae* of H. Peter M. Homenuck

No cross-examination

Exhibit 561 - Subpoena *duces tecum* issued to Jack B. Ellis dated June 27th, 1974 with affidavit of service of Ernest Spiteri attached thereto

JACK B. ELLIS called, sworn and examined by Mr. Monaghan, Commission Counsel

Exhibit 562 - *Curriculum Vitae* of J.B. Ellis

Cross-examined by Mr. Lockett for City of Mississauga

Cross-examined by Mr. Sharpe for Government of Canada

Cross-examined by Mr. Stratton for Borough of Etobicoke

No cross-examination by other counsel present.

Mr. Monaghan outlines procedure to be followed at Public Hearing commencing August 20, 1974

Mr. Monaghan applies for an order requiring that material undertaken to be produced by the witnesses be produced by August 7th, 1974.

So ordered.

At 1:15 p.m. Hearing adjourned to August 20 at 10:00 a.m.

Signed

J.W.N. Delorme

Registrar

### **Sitting at Toronto on Tuesday this 20th day of August 1974.**

Present: The Honourable Mr. Justice Hugh F. Gibson, Chairman  
Murray V. Jones, Esq., and Dr. Howard E. Petch -  
Commissioners

Public Hearing to receive the evidence of persons involved in the preparation of the "Pickering Impact Study" prepared for the

*Airport Inquiry Commission Report*

City of Toronto by Diamond & Myers in co-operation with Jack B. Ellis & Associates, Ltd., and the Institute of Environmental Research Inc.

Mr. R.S. McCreath, Q.C.

Mr. R.W. Macaulay, Q.C.

Mr. B.A. Monaghan

Commission Counsel

B.J. MacKinnon, Q.C.

Thomas Dunne

for the Government of Canada

J.T. Weir, Q.C.

Stephen Flott

for the City of Mississauga

D.J. Wright, Q.C.

R.N. Waterman

for the City of Toronto

R.B. Waller

for de Havilland Aircraft of  
Canada, Limited

W.P. Butler

for the Borough of Etobicoke

G.H. Marsden

for the City of Brampton

G. Stewart

for the Regional Municipality of  
Peel

Mr. Macaulay, Commission Counsel, opens and refers to the production of Exhibit 558.

Mr. Macaulay continues his opening.

Mr. D.J. Wright for City of Toronto opens and calls -

*JACK B. ELLIS*, already sworn, examined by Mr. Wright on traffic forecasts.

Recess 11:15 a.m. - 11:30 a.m.

City of Toronto calls a panel consisting of:

Jack B. Ellis

Jack Diamond

H.P. Homenuck

Mrs. Feltes - not sworn

for cross-examination.

Cross-examined by Mr. Weir for City of Mississauga



*Exhibit 563* - Replacement pages 42, 59, 61 and 64 for Exhibit 556B

Cross-examined by Mr. MacKinnon for the Government of Canada.

Further cross-examined by Mr. Dunne for the Government of Canada.

Recess 1:00 p.m. - 2:15 p.m.

Mr. Dunne continued his cross-examination of the witness

Recess 3:30p.m. - 3:40 p.m.

Mr. Dunne continues his cross-examination of the witness.

No cross-examination by other counsel present.

Cross-examined by Mr. Maccaulay, Commission Counsel.

Dr. Ellis examined by Mr. Wright on the matter of noise.

Cross-examined by Mr. Weir for City of Mississauga.

At 5:30 p.m. hearing adjourned to 9:30 a.m. tomorrow.

**Wednesday the 21st day of August, 1974 at 9:30 a.m.**

Cross-examination of Dr. Ellis continued by Mr. Stephen Flott for City of Mississauga.

Cross-examined by Mr. Butler for Borough of Etobicoke.

Cross-examined by Mr. Dunne for Government of Canada.

Exhibit 564 - Letter June 26, 1974, to U.S. Federal Aviation Administration from Douglas Aircraft Co. with attachments 1 and 2

Recess - 11:15 a.m. to 11:30 a.m.

Mr. Dunne continues his cross-examination of Dr. Ellis.

Cross-examined by Mr. Monaghan, Commission Counsel.

Re-examined by Mr. Wright for City of Toronto.

Dr. Ellis now examined by Mr. Wright on terminal and runway capacity.

Cross-examined by Mr. Dunne for Government of Canada.

No further cross-examination.

Mr. Wright now examines Dr. Ellis on the matter of road access.

Cross-examined by Mr. MacKinnon for Government of Canada.

No further cross-examination.

At 12:30 p.m. Hearing adjourned to 2:00 p.m.

At 2:00 p.m.

Mr. Wright opens on the matter of environment and examines.

H.P.M. HOMENUCK, already sworn

Exhibit 565 - Replacement pages to Exhibit 556 -

1. Population 1986

2. Population 2000

3. Page 208

4. Background: - Paper 7 (3pages)

JACK DIAMOND, already sworn, called and examined by Mr. Wright for the City of Toronto.

Exhibit 566 - Extract from Report No. 27 of the City of Toronto Executive Committee as amended and adopted by City Council on June 26, 1974.

Cross-examination

Reply

Mr. MacKinnon opens and files:

Exhibit 567 - Report - Economic Impact of the Dallas/Fort Worth Regional Airport on the North Central Texas Region-in 1975 date January 1970

Exhibit 568 - A reprint from Growth and Change University of Kentucky entitled The Montreal Airport Site

Exhibit 569 - Document entitled Socio-economic Implications of Airport Planning

PHILIP BEINHAKER - already sworn, called and examined by Mr. MacKinnon

DR. J.B. CHOUKROUN, already sworn, called and examined by Mr. MacKinnon.

Witness cross-examined by Mr. Wright for City of Toronto.

Cross-examined by Mr. Macaulay, Commission Counsel.

At 4:00 p.m. the Hearing adjourned.

## GLOSSARY

AMBIENT NOISE	— Background noise; the average level of noise that generally prevails in a community.
ANNEX 16	— Certification standards and recommended practices for the reduction of aircraft noise adopted by the Council of the International Civil Aviation Association, 1 August, 1971.
ANNEX OF UNDER- STANDING	— A joint announcement by the Government of Canada and the government of the Province of Ontario, 2nd of March, 1972, in which the two governments set out their respective responsibilities, among other things, for development of a new major airport to be located at a site near Pickering, Ontario.
ASDS	— Aircraft Sound Description System
CNEL	— Community Noise Equivalent Level
CNR	— Composite Noise Rating system
CTOL	— Conventional Take-Off and Landing aircraft.
dB(A)	— A-Weighted decibel
DUAL LANE RUNWAYS	— Two parallel runways separated at 2500 feet or less from centre line to centre line of each runway.

ENPLANED/DEPLANED  
PASSENGERS

- The total of originating, terminating and interconnecting passengers at an airport.

EPNdB

- Effective Perceived Noise Decibel, a measure designed to estimate the noise of aircraft which includes correction factors applied to a PNdB measurement to take into account the maximum tone emitted and the duration that the maximum noise is heard.

EPNL

- Effective Perceived Noise Level, the sound level measured in units of EPNdB

FAA

- Federal Aviation Administration of the United States.

FAR 36

- A regulation made under the Federal Aviation Act of 1958 of the United States which specifies noise certification standards for aircraft.

FIRST GENERATION JETS

- Jet aircraft powered either by JT3D engines or JT8D engines.

IATA

- International Air Transport Association

ICAO

- International Civil Aviation Organization

IFR

- Instrument Flight Rules, rules and procedures for the operation of aircraft in the controlled or uncontrolled

	airspace and under the control of air traffic control system.
INTERNATIONAL FLIGHT	— A flight originating or terminating at a point in Canada to or from any point in the world except United States.
JT3D POWERED AIRCRAFT	— B-707, DC-8
JT8D POWERED AIRCRAFT	— B-727, B-737, DC-9
LONG-HAUL	— A distance exceeding 500 miles.
NEF	— Noise Exposure Forecast system
NNI	— Noise Number Index
ORIGINATING/TERMINATING PASSENGERS	— Passengers who originate or terminate their flight at an airport but who do not take an interconnecting flight.
PNdB	— Perceived Noise Decibel, a measure of noise of a particular sound, usually aircraft noise, which considers the volume and frequency characteristics of the noise.
PNL	— Perceived Noise Level, a sound level measured in units of PNdB.
PURE FREIGHTER AIRCRAFT	— Aircraft which carry freight exclusively.
SECOND GENERATION JETS	— DC-10, L-1011, B-747
SHORT-HAUL	— A distance of 500 miles or less.

STOL

- Aircraft with short take-off and landing capability operating from a runway 2000 feet in length with steep approach capabilities.

TORONTO METROPLEX

- The area comprised in the Regional Municipalities of Peel, York, Durham and The Municipality of Metropolitan Toronto.

TRANS-BORDER

- A flight originating or terminating at a point in Canada to or from a point in the United States.

VFR

- Visual Flight Rules, rules and procedures for operation of aircraft in controlled or uncontrolled airspace, not under air traffic control but under visual responsibility for avoidance of other aircraft traffic.

VTOL

- Aircraft with vertical take-off and landing capability.



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—*see* Airport Zoning and Compensation





APPENDIX 8, M-1  
NEF Contours, Malton, 1980, based  
upon all traffic assigned to Malton.







# APPENDIX 9, M-2

NEF Contours, Malton 1980, based upon North European traffic, pure freight, and charter, both scheduled and non-scheduled assigned to Pickering and all other traffic assigned to Malton





# APPENDIX 10, M-3

NEF Contours, Malton, 1980 based upon long-haul and short-haul domestic and short-haul trans-border traffic assigned to Malton and all other traffic assigned to Pickering





#### APPENDIX 11, M-4

NEF Contours, Malton, 1982, based upon all traffic assigned to Malton and Milton having an additional runway (parallel to existing Runway 14/32, separated by 3,500 feet) for a total of 4 runways





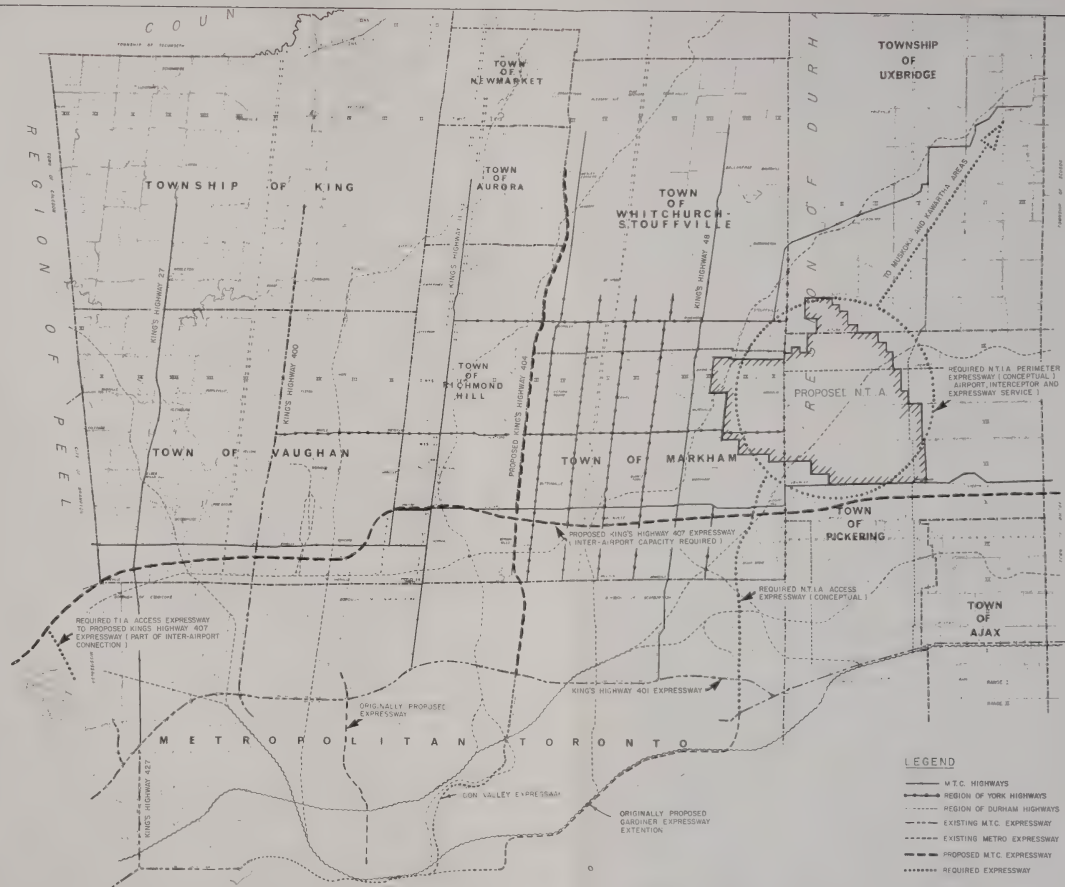






APPENDIX 13. M-6  
NEF Contours Pickering 1980 based  
upon all traffic assigned to Pickering  
except long-haul and short-haul domestic  
and short-haul trans-border traffic.





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